THE NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

NEW SERIES. Boston, February, 1869. VOL. III.---NO. 2.

R. P. EATON & CO., PUBLISHERS, OFFICE, 34 MERCHANTS' ROW. MONTHLY. SIMON BROWN, S. FLETCHER, } EDITORS.

FEBRUARY AND ITS OPPORTUNITIES.

MUCH has been said of the brevity of this last winter month, and of its changeable aspect; its fierce winds and drifting snows; its sloppy roads and glittering ice, all following each other in rapid succession. Such is usually its true character, and to a mind unoccupied would undoubtedly prove cheerless, tedious and long, although the shortest of all the months.

To the farmer, however, who has a lively interest in his occupation, and who is in the enjoyment of good health, no day or month in the year seems too long. He feels responsible for the well-being and progress of the family around him, and is always solicitous to secure whatever will prove interesting and profitable to those of his household who are in great measure dependent upon him.

Then there is another class of beings equally dependent upon his skill and care,—the faithful animals that labor for him, and feed and clothe him. But for him the snows of February would prove their winding sheet. With these domestic duties devolving upon him, with all their changing details from day to day, there is little room for feelings of a desponding nature, or for discontent with his lot. The gratitude of kindred, the grateful recognition of his animals when he meets them, together with the consciousness of duties well discharged, bring a perpetual sunshine to the soul, whether *February* rushes by in the grandeur of storms of wind and snow, or moves on in the gloom of clouds or dripping rain.

What a change has taken place in a great many particulars in farm life, within the recollection, probably, of many who read these lines. Fifty years ago, not only was there less thought of progress on the farm, but, also, less thought of improvement of the mind. Many of the school-houses then were low, unpainted, gloomy structures, perched upon some bleak hill, or isolated on some barren plain. The searching winds swept through the loose underpinning and ample cracks in the floor, among the shivering limbs of the boys and girls, or tore away clattering boards as they went wailing through them!

The inside of the house was little better. A huge fire-place often of stones, full two feet deep and five or six wide, with a throat long and wide enough to admit a yearling steer, was a contrivance by which to warm a room sufficiently for little boys and girls to sit and study in, four hours at a time! The seats and desks were in exact keeping with other arrangements; close together, hard, nar-

row, and just as well calculated to afford comfort as the fire-place was to afford warmth! As to convenience they had none, and getting in and out of them could only be accomplished by that wonderful flexibility of limb which especially belongs to boys and girls. The books were few and meagre. The *philosophical* apparatus was a huge poker and pair of black tongs, both fashioned on the smith's anvil in the village. Out-of-doors, an abundance of gymnastic exercises was obtained through the agency of certain ponderous wooden shovels which were constantly put in requisition, in order to afford ingress and egress to the door of the house.

The pursuit of knowledge under such circumstances, or of religious instruction, was certainly a hard, if not a painful one. To sit two hours in a room surrounded on all sides by large, and loosely fitting windows with the thermometer vibrating about zero, if not positively falling below, and where the genial influences of a wood or coal fire had *never* been felt, would now be considered a hardship that could not be endured. Yet such were the circumstances under which many of those now living grew up. It is not necessary to write out the contrasts. They are afforded in nearly every church and school-house in the land. With their neatly fenced yards and shade trees, they are as attractive outside as they are convenient and comfortable within.

If the blessings which these may confer are not improved and appreciated, woe will come to our goodly land.

It is in *rural life* where they will be valued most, and it is to *rural life* that we must look for that purity and patriotism which will preserve our civil and religious freedom and hand them down to generations yet unborn.

Then there are other changes in farm life no less striking, and which greatly affect the prosperity of the farmer. Fifty years ago, the winter care of farm stock was looked upon by many as a sort of stern necessity imposed upon the farmer, from which no corresponding compensation was derived. Now, all this is plainly seen to have been a mistake, or rather, the want of a proper knowledge of the business in which he was engaged. We have heard persons boast of *wintering a cow on one ton of hay!* It was said with an air of gratulation,—a feeling of triumph in achieving such a result in economy!

The policy seemed to be to keep the stock at the lowest possible cost, take it through the winter, and get it into pasture in the spring, on its own legs! Under such a course, the cattle and sheep came out lean and lousy, having made little or no growth, and the cows in calf, weak and in miserable condition to feed the young when dropped. The swine had long legs and long noses, and could run like race horses so long as the little strength they had held out. The colts were poor and frowzy, and had about as much spirit as a sick hen; walked cross-legged when "stirred up," and with their ears flopping about their eyes.

Under such treatment, it was no uncommon occurrence for a farmer with six cows, a horse, a colt or two, three or four swine and a dozen sheep, to lose one or two from each class by disease, by accident occasioned by weakness, or from some other cause growing out of mismanagement. All this "has changed," now. Two tons of good hay is not thought too much for the winter-feed of a cow, even if roots and a little grain are occasionally added. It is supposed to be economical to keep all stock warm, clean, their apartments ventilated, and their feed given to them at regular times. No one now doubts that all the animals should be kept continually growing in winter as well as summer, and if possible in condition fit for the shambles at all times. In short, true economy, it is believed, consists in liberal feeding, cleanliness, regularity, mild temperature and kind treatment in every respect.

A brief retrospect of the past, then, in this good month of *February*, and a fair comparison of the past with the present, will present numberless encouragements to all to go on with cheerful hearts and a new courage to improve both the soil and the mind.

THE TARIFF ON WOOL.—An extensive and very experienced wool broker in New York—one of the large hearted and liberal men in that business—thus writes us:—"Sheep husbandry was never on as good a base as it is now. In Europe fine wool was never as cheap—fair Mestiza being at five to five and a half pence, and Cape at six to seven pence. Where would our wool growers be if not protected? The stock of fine clothing wool in Europe is terrific."—*Rural New Yorker.*

USE OF BONE AS A FERTILIZER.

SOME satisfactory experiments have been made during the past two or three seasons in the use of bone as a manure, while others have failed to give that satisfaction which was expected. But in the hands of careful and patient persons, many results of the use of bones have thoroughly satisfied some, who entertained sincere doubts of their utility, that bones are an exceedingly valuable stimulant of vegetable life, and that every pound of them not needed in the arts ought to be preserved and properly prepared for use on the soil.

We do not mean by this that the flour of bone, or bone in any form, is a universal panacea that will bring a crop on any soil and under all circumstances. By no means. Crude bone is extremely slow in its action,—but when reduced to flour, it is so active as to require great care in its use, as it will soon bring on fermentation in the coarsest materials that we convert into manure. This is a great merit in it, as it enables us to prepare fine composts for applying to the hill; this helps us essentially in bringing crops forward rapidly, in such cold and late seasons as the last planting season was. Some of our correspondents have rather undervalued the merit of bones, we think,—and so all other substances used as manure have been. We can show the reader acres of land, sufficiently dry for cultivation, which was liberally dressed with excellent barn manure, and *without the slightest visible effect!* Who can tell why? The *true* value of any fertilizer cannot be determined by any single experiment.

The bones of animals are composed of an animal substance called *gelatine*, and certain inorganic matters. By calcination, bones are deprived of their animal matter, but the action of fire affects them essentially, in no other way, a bone after calcination, being, in every material respect, precisely the same, so far as its inorganic properties are concerned, as it was before. The organic substances contained in the bones of the mammalia, and of man, may be assumed, on an average, to be 32 to 33 per cent. Of this, somewhat more than one-half is nitrogen. The remaining 67 or 68 per cent. are of phosphates (52 to 57 per cent.)

Berzelius gives the following analysis:—

	Bones of the Ox.
Animal matter, (gelatine)	33.30
Soda and common salt	2 45
Carbonate of lime	3 85
Phosphate of lime	55 45
Fluoride of calcium	2.90
Phosphate of magnesium	2 05
	100.00

Prof. *Johnston* states, without qualification, that 100 lbs. of dry bone dust add to the soil as much *organic* animal matter as 300 to 400 lbs. of blood or flesh, and they add at the same time two-thirds of their weight of inorganic matter, consisting of lime, magnesia, soda, common salt, and phosphoric acid (in the phosphates)—all of which must be present in a fertile soil, since the plants require a certain supply of them all at a certain period of their growth. These substances, like the inorganic matter of plants, may remain in the soil and may exert a beneficial action upon vegetation after all the organic or gelatinous matter has decayed and disappeared.

Some have supposed that the fertilizing power of bones is derived mainly, or in a great measure, from the nitrogen contained in the gelatinous substance of the bones; but we believe that experience has demonstrated that that calcined bones, which have been deprived of their gelatine by the action of fire, have a much more immediate and potent effect upon vegetation than bones in their crude or natural state. The presence of the nitrogenous constituents of the bones is therefore to be regarded as an obstacle to the rapid and genial manifestation of their fertilizing qualities.

As to the phosphates of bones, it may be proper here to remark, as in the case of humus, they can only become capable of being assimilated by the vegetable system after the complete destruction of the organic substance by putrefaction.

The use of bone manure, as well as of ground shells—both of the "Crustacea" and "Testacea,"—will yet become more common in this country. The popular mind is already awake to the importance of according a greater degree of attention to the fertilization of soils, and the feeding of crops; and in this new manifestation of enterprise we have a flattering guarantee that agriculture, so long kept below its proper grade in the arts, is to assume its legitimate position, and produce its legitimate results.

The farmers of England have long been

aware of the immense benefits to be derived from the use of bones upon their soils. They have carried tens of thousands of tons from our shores, swept over the broad pampas of South America, and even gleaned the battle field of Waterloo for the bones of every dead man and beast that could be found upon it! Under a judicious system of preparing and applying bones, their crops—instead of falling off, as they usually have in other countries—have actually increased in a material degree. It has become proverbial there, that "*one ton of German bone dust*, saves the importation of *ten tons of German grain*," and that agriculture is thus rendered, in a considerable degree, practicable without cattle breeding, grazing, &c. Let us not, however, become so attracted by the bones as to forsake any of our good old practices of having a barn full of stock to feed in the winter, and to graze upon our beautiful hills in the summer.

Many persons have undoubtedly been disappointed in the use of bones as a fertilizer, from a want of experience in using them. They ought not to be applied to the crop in a crude condition. Even when converted into what is called *superphosphate*, or when the bones are softened by steam, dried, and ground to a powder, they ought to be mixed with muck or loam and slightly fermented before being applied to the soil. Add five or six times their bulk of soil or muck, and then turn over the mass and thoroughly mix it some weeks before using it. This is especially necessary where it is to be used in the hill, and we have no doubt that wheat, barley and oat crops would receive much more benefit from a given amount of bone applied in this way, than if it were used without such preparation.

THE OLD MIDDLESEX SOCIETY.

The Trustees of this time-honored and influential Society held their annual meeting at the Middlesex Hotel, in Concord, on Friday last. Nearly all the Trustees were present, and manifested a most lively interest in the business before them. The President of the Society, JOHN CUMMINGS, Esq., of Woburn, presided. A vote was passed directing a building committee to proceed at once and erect a substantial building according to a plan adopted last year. It is to be *one hundred and thirty feet long and seventy feet wide*. Its form will be unlike any building we have ever seen devoted to such objects; and we think will admirably subserve the purposes for which it is designed.

Before taking up the various branches of the premium list, several committees were appointed to report what changes it seemed desirable to make in them. On going through the items, *seriatim*, animated discussions frequently sprung up, and some of them were pretty thoroughly sifted. In most cases, at least on the more important items, the premiums were considerably increased, and some of them nearly doubled.

Some new premiums were added, one of which offers a premium of $20 for the best example in thorough drainage on not less than one acre of ground. Another is a premium of $15, and one of $10, for the best vegetable and fruit garden on any farm of not less than twenty acres. This is an admirable movement. It will tend to the care and cultivation of better gardens *on the farms*, where they have been greatly neglected, and to the introduction of fresh and healthful fruits and vegetables on the tables of the farmer, where a meagre supply only has been enjoyed. The President made some excellent remarks while the motion was pending, clearly showing that the *moral* influence of this movement would be still more valuable than the physical, and that it would gradually lead to that neatness, order and embellishment about the farm, that would give a new aspect and tone to rural life.

Many of the Trustees are still short of middle life, and are full of zeal and activity, and possess ample means to aid on the grand work.

The society now is in its *seventy-fifty year*, and promises, to-day, to exert an influence in the coming year greater than it has ever exerted before. The spirit manifested in this meeting is encouraging, and will work out valuable results.

—At the annual meeting of the Hampshire, Franklin and Hampden, Mass., Agricultural Society, Milo J. Smith, Northampton, was elected President; Elnathan Graves, of Williamsburg; Andrew T. Judd, of South Hadley; Isaac Parsons, of Southampton; Samuel L. Parsons, of Northampton, Vice Presidents; A. Perry Peck, of Northampton, Secretary; H. K. Starkweather, of Northampton, Treasurer; Oscar Edwards, of Northampton, Auditor.

For the New England Farmer.

THE GARDEN IN FEBRUARY.

Little can usually be done in the garden during this month, except preparing for the coming season's work; and here much may be gained by judicious planning, and by doing what may be as well done now as when other work presses. The long evenings and comparative leisure of winter are favorable for reading and social visiting among the farming community, embracing attendance on the meetings of the Farmer's Club. For the young, one of the most interesting and useful, yet one of the most neglected branches of study, is astronomy. The ancient farmers were directed in their operations, first, by observing the course of the moon. Finding this an imperfect guide, they were led to observe what stars began to emerge, as the rays of the sun subsided, and what ones appeared above the horizon during the interval between evening twilight and morning dawn. By numerous and attentive observations, they traced out the course of the sun and stars, and by a stretch of the imagination they grouped the latter, giving to each constellation the name of some animal which the stars were fancied to outline; and also named the principal stars in each group or constellation. By continued study the whole heavens were mapped out and named. By observing what stars and constellations came overhead at certain hours, they were enabled to make the true divisions of the seasons, measuring the exact length of days, weeks, months and years, and fixing their bounds. And now we find that certain stars and constellations come to the meridian at set times. For instance, the following constellations arrive on the meridian in February. The Lynx, Gemini, Canes, Major and Minor, and Monoceros or the Unicorn. A history of each and all of these constellations, and the principal stars of which they are composed, as laid down by the ancient poets and mythologists, might be interesting, but I must content myself by calling attention to it. It may be found in works that every town or district library should contain.

Cold Frames.—See directions given last month. Plenty of air on mild days, and protection from sudden changes of temperature, comprise the duties here.

Cuttings and Scions.—Gooseberry, currant, and grape cuttings, and scions for grafting, may yet be taken when the wood is not frozen. Make careful selections, recollecting that health, vigor and increased productiveness are of great importance, and be sure they are true to name.

Grape Vines.—If pruning has been neglected, it should be done the first warm spell, when unfrozen. Pruned when the wood is frozen, they bleed in Spring and Summer.

Fences.—Recall what was said of broken gates, and poor fences a year ago; good fences make good neighbors, and frequently save valuable trees, vines, &c., from intruders.

Fruit stored in the cellar and fruit room should be looked over, and all specked or decaying specimens selected out and used.

Horseradish.—A thaw will enable you to get at, and dig it. If more is dug than is used at once cover it with dirt in the bottom of the cellar. Grated and bottled, with a little salt and water added, it makes a healthy, excellent condiment.

Manure is the basis of all good gardening, and its proper application the secret of success in growing vegetables, &c. Save and collect all that can be turned to advantage into fertilizers for the soil. House slops, suds from the wash tub, the privy vault, and all refuse of a perishable nature, composted with muck or loam, will make good manure for the garden. Save all the ashes; wood ashes contain all the elements that most vegetables need in their growth.

Pea Brush and Bean Poles.—Now, while getting up the year's supply of wood, is a better time to provide these in sufficient quantities, than to wait till the sap begins to run.

Protection to vines, plants, &c., should not be removed, even if a warm spell does occur. Protection is not merely on account of the severe cold of our climate, but to preserve from the effects of sudden alternations of heat and cold, in spring. If any covering has become displaced, it should be carefully replaced at once.

Shrubbery and Trees.—Look to them after a heavy fall of snow to see that they are not borne to the ground, broken down, &c. Shrubbery may be pruned, if judiciously done, in mild weather.

Seeds.—Last year I gave a select list of garden seeds, to which I would call attention. New varieties are constantly being introduced, some of which may be tried. Last year I tried the Mexican and the Trimble Sweet corn, and find them so good that I shall substitute them for other varieties. Both are earlier than the Evergreen, and I think Trimble's is much better. Overhaul and examine all seeds, and if a deficiency exists, order at once from some reliable grower, like Gregory, of Marblehead; or dealer, like Hovey & Co., of Boston, who advertise in this journal. Better be at considerable trouble and a little extra expense, to get good seed than to take those of doubtful quality as a gift. The age of seeds affects their quality. Some will germinate only while fresh, while others will retain their germinative capacity for several years, depending largely on the care given them. Carrots, onions, parsnips, and salsify, cannot be relied upon after they are more than one year old, while melons and cucumbers are improved by age, and retain their vitality for ten years or more. The only safe test of germination of any seed is to try it, by placing it in constant-

ly damp moss in a warm place, or in a box of soil kept moist and warm. As a general thing the harder and more solid the seed the longer it is in germinating; there being quite a difference in time with different varieties, some germinating in one or two days, and others requiring one to two weeks.

Wm. H. White.

South Windsor, Conn., 1869.

For the New England Farmer.

KICKING COWS.

In your issue of the 26th, "E. L." asks a remedy for a kicking cow. I have not seen our practice recommended, and wish he would try it, and report progress through the Farmer, for the benefit of those similarly afflicted. Put the cow in stanchions. Take a strap of sufficient length, with a buckle or ring at one end, and pass it around her body just back of the shoulder; then stand at as safe a distance as possible and slip it back to the hips and udder, and tighten the strap with a firm pull, which may be done without the least danger. This renders the animal powerless to kick. Then proceed to milk as though nothing had occurred, being assured that the cow cannot lift a foot into the pail, if the work has been properly done; if not, tighten the strap two or three inches more. After a few days the strap may be applied looser, and according to our experience may soon be finally dispensed with.

Believing as we do that nine of every ten kicking cows are made so by accident or mismanagement, we would enjoin, as of the utmost importance, the exercise of kind and gentle treatment in all cases. I think the most fruitful source of mischief is neglecting cows previous to their "coming in;" allowing udders to become pressed and inflamed. Especially is this the case with heifers, which like all other young milking animals, secrete milk much longer before it is needed for their young, than older animals. This early secretion, sometimes natural and at others induced by milk-producing feed, frequently causes the udder to become inflamed and very painful to the animal, and alarming to its owner, who may have inherited a prejudice against previous milking, and has no faith in, or fancy for bathing; consequently he resorts to the prevalent remedy of letting the calf "take out the fever." This accounts for the frequency of obstruction in the milk ducts, or a partial or entire loss of the udder. It accounts also for the numerous haggard looking heifers with lean calves, made fierce by hunger, tugging at inflamed and swollen udders, "taking out the fever." As there is little else for them to take, they commence a series of pulling, biting and butting, which fairly forces the mother, though possessed of more than human fortitude, to repel the brutal attacks, by scores of half involuntary but desperate kicks, which are repeated of course when the milking commences.

The kicking heifer must be "broke or she is spoiled," meditates the milker as he seats himself with elbows distended just in time to receive a well directed kick over both arms, completely wiping him out, pail and all. The frightened animal of course flies from the wreck, and leaves the milker to gather himself up. Confused, mortified and enraged, he starts in pursuit, perhaps hurling brickbats, and stones at her most vulnerable points. If he succeeds in getting her into the stancheons, she receives cruel kicks, and thundering blows perhaps from a three-legged stool.

Thus commences the history of many an inveterate kicker, which, becoming desperate, determines to fight it out on that line. This may seem to be exaggeration, but who that lives in the country is not familiar with such disgraceful cruelty? I knew a man who on being kicked from his stool, sprang with an oath and an uplifted cudgel at his cow, which instantly broke from the stable, ran across the floor, and clearing the girt, jumped to the bottom of a deep bay, to avoid her pursuer, who had to remove the solid double boarding to get her out. I am acquainted with a man, who, in a fit of rage, after hastily looking for some weapon, caught the tail of the offending cow in his teeth, and with a fiendish grin nearly severed it and left it bleeding, saying with a curse, "now I guess you will mind!"

O. C. Wait.

West Georgia, Vt., Jan. 1, 1869.

CROSS-CUT SAW.

Ten years' experience in the use of cross-cut saws, has proved to me that I have been working under many disadvantages, until recently. My wish is for all to know the great advantage of a plan which I pursue. Take a new saw that has never been set, place it between two boards, cut to fit the saw, clamp it tight on a bench or in a vise; take an iron wedge, file one corner to suit the set of the tooth when finished, then take a small hammer, hold the wedge with the left hand, strike the tooth lightly with the hammer until at the right place; then turn the wedge on the opposite side, and on the next tooth, and set it in the same way; now then you reach the third and most important tooth in the saw—leave it perfectly straight; pass on to the fourth tooth, set it as you did the first, turn the wedge, set the fifth the other way; leave the sixth tooth straight; and so on until you finish.

Now take your file, dress the two teeth as you do the common saw; the third file perfectly straight and square—leaving it about one-twentieth part of one inch shorter than the others. Continue in that way until you finish, and you will find it will cut twice as fast as the old way practiced by most farmers.—*Southern Cultivator.*

FARMING IN NEW BRUNSWICK.

In a very business-like and intelligent report by Arch'd Harrison of the Sunbury, New Brunswick, Agricultural Society, published in the Fredericton *Colonial Farmer*, we find some statements which may interest our readers, especially as much less is known of farming at the far "East" than in most other parts of the North American continent, either West or South.

It appears that although this society holds an annual Fair, all its available funds are expended in the purchase of stock, seeds, &c. Animals thus bought by the society are sold to invidual farmers, on condition that they shall be kept in the Province a specified number of years. During the past year the society has introduced into the district of Sunbury, one pure bred Durham bull and a heifer calf, four Leicester and two Cotswold rams, one grade calf, four Berkshire boar pigs and five sows. Twenty bushels of choice seed wheat were also procured and sold by the society. Might not our own county societies do something of this kind to the advantage of many individual farmers who have not the time or means to hunt up and buy such animals or seeds as they would be glad to make an experiment with, if they could procure them on favorable terms, as to price and time of payment?

On account of short seasons, the district of Sunbury is not well adapted to grain or roots, but is good for grass. The average crop of hay the past season is stated at one and a half to three tons per acre. Still fair crops of wheat, oats, barley, buckwheat, Indian corn, peas, beans, potatoes, turnips, carrots, mangolds, blood beets, &c., are raised. The Secretary remarks:—

Barley is not sown to any great extent. In some instances the past season, the crop was good; in others very light; from 30 to 50 bushels per acre. Of Indian corn there is but little planted, although more last year than the year previous. Returns are good, both in quality and quantity. The potato crop in almost every instance was good; far superior to that of last year. Returns from 200 to 400 bushels per acre, according to variety. The turnip crop the past season was in a great many instances a total failure. Some fields had the appearance of a fair crop, but when pulled, nearly 25 per cent. were diseased. Stock potatoes are in a measure supplanting them. Mangold Wurtzels are also on the decrease; they do not seem to grow as formerly, and are extremely exhausting to the soil. The raising of blood beets is on the increase. They are superior to the Mangold Wurtzel for feeding; the returns being fully equal. Carrots, although a very troublesome crop, are really a paying one; the returns from 500 to 600 bushels per acre.

At the annual exhibition of the Society, last fall, there were 317 entries; an increase of nearly fifty per cent. over last year. The show of sheep was hardly equal to last year, owing to a wet and otherwise unfavorable season. The same causes may have had more to do than is generally supposed in producing the present stampede among the fine-wool growers of the United States. The wheat purchased by the Society this year was eagerly bought by farmers, and the crops have been satisfactory. It is expected that a much greater breadth will be sown next season. In only two instances had this year's crop been threshed, showing in one case, returns of 19 bushels and in the other 16 bushels from one of sowing.

SUNFLOWERS *vs.* MIASM. — The *Prairie Farmer* has an article upon sunflowers and other quick growing plants which present a large surface of leaves and flowers to the atmosphere, as a means of absorbing and neutralizing malarious miasms. Several interesting facts are quoted in favor of this idea, and the question is asked if a belt of sunflowers around the Eternal City would render it secure from the air coming from the Pontine Marshes, as its walls of stone protected it from the invasions of its enemies? Here is a new field opened for scientific investigation. It is commended to the attention of the friends of "Social Science."

For the New England Farmer.

REMOVAL OF THE CATTLE MARKET TO WILMINGTON.

I wish to call the attention of drovers and butchers to the best location for the cattle market that there is in Massachusetts. This, I think, is at the junction of the Boston and Maine, and the Salem and Lowell railroads, in the town of Wilmington. Near this junction there are hundreds of acres of land that can be bought for less than $25 per acre, and a great portion of it is excellent land for grass, when cultivated and manured.

Wilmington may be compared to a cart wheel lying horizontally, having almost an entire circle of cities for its rim, and railroads for its spokes. Establish the cattle market here, which would make the hub, and the wheel would be complete. The drovers are now paying a large tax for yarding their cattle and sheep. At this place the owners of the land could well afford to give the use of the yards for the manure, as good stable manure

cannot be purchased in Wilmington at less than $12 per cord delivered on the field.

The Northern and the Eastern stock could reach this spot one hour earlier than they can Cambridge. The Western cattle could come from Worcester to Groton Junction, and then over the Stony Brook road through Lowell to this place. The ride on the railroad for these cattle would be some longer, but they could be let from the cars right into the pens. Therefore it would take no longer to deposit them in the yards here, than it now does to deliver in the yards at Brighton.

The butcher occupying a stall in Boston market house, could take the cars on the Boston and Maine railroad, and arrive at this place in less time than is now required for him to go to the yards in Brighton. Butchers at Salem and Peabody can take the Salem and Lowell road, and arrive at this place in one-half the time now occupied in going to Brighton. Butchers at Nashua, Lowell, and Lawrence, Andover and Haverhill can leave their homes and arrive at this junction in one quarter of the time required for a journey to Brighton.

If the drovers wish to visit Boston, after selling their stock, they could step into the cars on the Boston and Maine road and arrive at Hay Market Square in Boston quicker than they can now go from Brighton by the horse cars to Boston.

A short distance at the northeast from this junction, is a large and beautiful swell of land, more than a mile in length, which overlooks thousand of acres of land on the west. This rise is now covered with wood, and the land can be bought for a very little more than what the wood is worth that is standing on it. When cleared it would make one of the most beautiful sites for a village that can be found in the State.

The cattle markets have built up Brighton and Cambridge, and the land has now become too valuable for cattle and sheep to stand or walk upon. The bellowing of cattle, and the bleating of sheep and calves is not a very pleasant sound to most of the residents in these villages, and their streets and sidewalks are so nice that cattle can scarcely be driven away from the yards without committing some damage for which the owner is liable.

As the market in these places has thus become a nuisance, and as real estate has greatly advanced, the butchers there might sell their property at a high price, and locate themselves at a much cheaper rate in Wilmington, where their slaughter houses could be so located with reference to the railroad track that the beef may be shifted from the hooks in the slaughter house, to the hooks in a car made for the purpose, without lifting a single pound, and one long car, properly fitted up, would take forty oxen from this place to Boston, quicker than one horse can take four oxen from Brighton to Boston in a wagon. Mutton, veal, &c., might be transported in the same way, and the expense could not be great. Much more might be said of the advantages of Wilmington as a cattle market, but if the foregoing shall direct public attention to the subject, my present object will be accomplished.

A. G. SHELDON.

Wilmington, Mass., Dec. 28, 1868.

SALE OF CHOICE STOCK.—A few week since we noticed the arrival in Canada of Short-horned and Jersey cattle, Cotswold and other sheep, Suffolk horses, &c., purchased in England by Mr. M. H. Cochrane, for his farm in Compton, C. E., at an expense of some $15,000 in gold. From his stock we learn that he has recently made the following sales:

To H. C. Bulleigh, Fairfield, and G. G. Shores, of Waterville, Maine, his entire herd of Herefords, consisting of fourteen animals. The above won first class prizes in all their classes and the State Gold Medal at Rochester, N. Y., this season.

To A. R. Duncan of Towanda, Ill., one imported heifer, *Wharfdale Rose.*

To J. H. Pickrell, Harristown, Ill., the imported yearling bull, *Baron Booth*, of Lancaster, winner of first prizes wherever shown.

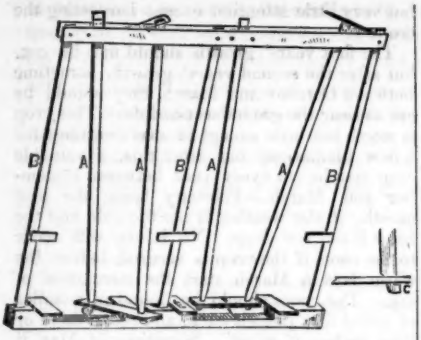
To A. I. Hallet, West Waterville, Me., one imported Cotswold ewe; one imported Oxford Down ewe; one imported Lincoln ewe, and one Cotswold ram lamb.

To E. G. Bedford, Paris, Ky., three imported Berkshire swine, one boar and two sows.

CUTTING TIMBER TO LAST.—Mr. Skinner, an experienced farmer of Herkimer County, N. Y., recently stated before the Little Falls Farmers Club, that he always cut timber when it was frozen, in order that it might last a long time without decay. He was aware that other seasons of the year were recommended. He had tried all seasons and with a number of varieties of wood, and no timber lasted so well as that cut in winter when the timber was frozen. He said a hemlock stick used as a stringer for bridges would last longer when the bark was left on. Had observed it often, and gave as a reason that the bark kept the wood moist. He thought the best timber for sills, or for building purposes, was red elm, next in order was oak, white elm and red beach. For pins, the raves of wood sleds, and bolsters to wagons, there was no timber he preferred to red elm.

REMARKS.—Thus "doctors disagree." We solicit the results of the experience of the readers of the FARMER as to the best season for cutting timber for seasoning and preservation.

CHEESE.—In the year ending May 1st, 1867, there were 43,000,000 pounds of cheese exported from this country. The average price received by the factories was over 17 cents per pound in currency.



SAFFORD'S CATTLE-STANCHION.

Most of our readers will recollect a cut and description of a Cattle Stanchion patented by Mr. Safford, which was published about a year ago, at page 69 of MONTHLY FARMER. This was regarded as a great improvement on our hitherto imperfect stable fastenings. But Mr. Safford still continues his efforts for further improvements, and has patented another device which differs from the first in being more readily applied to ordinary stanchions, and in being so constructed as to allow the animal to lie on either side, and to rise up with greater ease. Common stanchions may be readily changed into the improved ones by suspending the neck bars A A, in above cut, loosely in the top-piece, by cleats, at the top; connecting the lower ends of the bars with the yoke F, and attaching this yoke to the bed-piece with a chain of sufficient length to allow the lower part of the stanchions to swing and twist about freely. The bottom cleats E prevent side movement in case one animal is disposed to hook another. The three short cross-bars on B B B are to prevent cattle from crowding into the feeding place. C shows the manner in which the bars are fastened in the yoke, which is done by nailing leather around the projecting end of the bar.

For the convenience of the engraver the cut gives a diagonal view of the stanchions which at first sight may represent them as leaning. This is not correct, as the stanchions are perpendicular.

It being difficult to give a correct view or description of this invention, and as a practical test is more satisfactory than theory, Mr. Safford authorizes us to say that he will allow any farmer to make and use one stanchion as long as he pleases, without buying the right to use or make others. For further particulars address Larkin S. Safford, North Appleton, Me.

WHAT DRIVES THE ENGINE?

A year before his death, George Stephenson visited Sir Robert Peel, at Drayton Manor. Professor Buckland was of the party. One day, as they observed a train speeding along the valley in the distance, Mr. Stephenson said,

"Now, Buckland, I have a poser for you. Can you tell me what is the power that is driving that train?"

"Well," said the Professor, "I suppose it is one of your big engines."

"But what drives the engine?"

"Oh, very likely a canny Newcastle driver."

"What do you say to the light of the sun?"

"How can that be?" asked the Professor.

"It is nothing else," said the engineer. "It is light bottled up in the earth for tens of thousands of years; light absorbed by plants and vegetables being necessary for the condensation of carbon during their growth, if it be not carbon in another form. And now after being buried in the earth for long ages in fields of coal, that latent light is again brought forth, and liberated, and made to work, as in that locomotive for great human purposes."

BUYERS' RULES.

The force of habit is one of the most striking examples of human weakness. The full meaning of the word "force" in this connection, however, can be realized only by those who have battled against some bad habit in which themselves or those with whom they were associated have long indulged. A few months since, notwithstanding its obvious injustice, the attempt to perpetuate the very convenient habit of buying wool on "general principles," was made by influential parties. This excited a bitter contest between buyer and seller. But wool dealers are not the only ones who have attempted to enforce buyers' rules that had acquired the force of habit. In a report of a committee appointed by the State Agricultural Society of Virginia, to write a brief history of individuals who had effected improvements in the agricultural interests of the State, we find the following honorable mention, as a benefactor to farmers,

of an individual who broke up an old rule or habit of the buyers of an important staple of the Old Dominion.

Tobacco, was formally sold by the note of the inspectors, which simply indicated the weight, and all that passed inspection was presumed to be nearly of the same value. The uniform price was twenty shillings Virginia currency, equal to $3.33⅓ Federal money, per hundred pounds. Mr. Benjamin Hatcher, of Manchester, (father of Mr. John H. Hatcher, in the Exchange Bank,) was the first to break through this rule, buying it at liberal prices, according to the quality and condition of the article, as well as the general state of the market.

For the New England Farmer.

EUROPEAN BASKET WILLOW.

Being one of the first to introduce into this State the European Basket Willow, and believing that when its cultivation is properly understood, it can be made not only one of the surest crops the farmer can grow, but also one of the most profitable, I have thought an article on this subject might not be unprofitable to the numerous readers of the FARMER.

The soil best adapted to the growth of the European Willow has been generally supposed to be a heavy, wet soil,—nearly every plantation which has come within the range of my observation having been set on meadow land,—but from experiments made on a variety of soils, I am satisfied that this is a mistake. To my surprise I have found them to make a better growth on a sand bank, than on a rich, wet meadow. They seem to make the best growth on a warm, rich, sandy loam, where either corn or potatoes would grow luxuriantly. On such soil they sometimes make a growth of ten feet in one season, and will make an averaged growth of six to eight feet; being very straight and slim, surpassing in quality anything I have ever seen imported. Our hot sun seems exactly adapted to its growth. During our hottest days in July, in a warm soil, they will make a growth of from three to four inches in twenty-four hours, while in a wet day they grow not more than one-half an inch.

To prepare the soil for a plantation it should be ploughed and planted two years with some crop which requires the land to be well cultivated; it should also be made rich enough to produce not less than fifty bushels of Indian corn to the acre.

In transplanting the willows, tops are preferred to roots; twigs about one-half an inch in diameter should be selected and cut from twelve to fifteen inches in length. As early in April as the weather will permit, the land should be well ploughed and furrowed three feet apart. In these furrows the cuttings should be set one foot from each other, not perpendicular, but on an angle of about forty-five degrees. The first year the land should be well cultivated. After this they require but very little attention except harvesting the crop.

The first years' growth should not be cut, but after the second years' growth, sometime between October and March, they should be cut as near the ground as possible. This crop is worth but little except to make cuttings for a new plantation; but after this, a valuable crop may be cut every year between December and March,—February being the best month, if the weather is not too cold and the snow is not too deep. No injury will occur to the roots if the crop is secured before the warm days in March start the circulation of sap. The canes should be bound in bundles of about fifty pounds each, and set in three or four inches of water. Sometime in May it will be found the bark will peal off very easily; they should then be stripped and sent to market.

During the past six or eight years, there has been a great demand for Basket Willow. It has been sold as high as eighteen cents per pound; but at six cents per pound, it yields a profit of not less than fifty dollars per acre. There is a ready sale for all that is grown and a very large quantity is imported. I have no willows for sale, nor time to answer any questions, except through the FARMER.

E. HERSEY.

Hingham, Mass., Dec., 5, 1868.

REMARKS.—The cultivation of the willow on a sand bank, or even on a warm, rich, sandy loam is a new idea to us. From our observation, as well as our reading, water and willows have become closely associated in our mind. They grow in wet places on our own farm, and wherever willows flourish we generally find them within reach of water. A late writer says that in England, where the white willow may be seen growing extensively in ten or a dozen counties, it is not grown on any but moist soil; in springy and wet situations, unfit for cultivation by reason of being too moist or wet, it may be found in quantity, but not on dry upland at all, except by the side of a ditch, or exceptionally wet places.

The common idea among cultivators of the necessity of "a heavy wet soil" for the growth of the willow is not only common but very ancient. Mr. Lowell in his recent poem, "Under the Willows," speaks of trees of that variety

> —"that lean along the brink
> Where the steep upland dips into the marsh."

And a much older writer than Mr. Lowell speaks of "the willows of the brook." It is with much pleasure, therefore, that we publish the foregoing statement by Mr. Hersey, of his success in cultivating the Basket Willow

on upland. The value of his statement is enhanced by his well known caution about making any statement or recommendation which is not fully justified by his own practical experience or personal knowledge, or to which he is unwilling to affix his name. But his doing the latter should not subject him to a personal correspondence. Inquiries for further information from Mr. Hersey must be made through the FARMER.

For the New England Farmer.

SYMPATHY BETWEEN MEN AND ANIMALS.

There is a sympathetical relation existing between men and animals which is not sufficiently understood or studied by farmers and those who have the care and training of domestic animals. That there is a controlling power which man has over the lower orders of the animal kingdom is manifest to all. It is the decree of the great Creator that man should have dominion over the beasts of the field, the fowls of the air, and the fishes of the sea. There is naturally placed upon all animals the fear of man; so that, instinctively those in a wild state flee from him or slink away from his presence. There is a power in the eye of man, when fixed steadily, which causes even the the most fierce and savage beast to quail beneath it. There is a power and majesty in "the human face divine" that exerts a peculiar sympathetical and restraining influence upon every animal. It is the power, glory and majesty of mind over matter and brute instinct. But in order that this power may be felt and exerted in its full and legiti mate manner it requires courage and calmness. It is the calmness and fearlessness of the gaze that give the power. As soon as the eye quails through trepidation or fear, the power is gone, the spell is broken, the beast has conquered, and there is danger.

It is not, however, to this power in a general sense that we would invite attention at this time, but to that influence and power which are exerted over domestic animals by those who have the care of them. A man is constantly exerting a peculiar sympathetical influence over all the various animals with which he has to do,—which is being as constantly reflected back in the disposition and character of each individual creature, according to the sagacity, spirit and value of the animal. Some animals, however, are naturally so stolid and spiritless that they are almost worthless except to supply the market stalls. How often do we see the nature and character of a man reflected back in his horse? A nervous, fidgety, irascible man will make in a short time a nervous, restless, fractious horse. His horse has caught his temper and disposition, and will make them manifest. While on the other hand, a calm, dignified, even-tempered man will soon make his horse, like himself, calm, noble, docile and gentle. How manifest is this also in times of danger, when horses become alarmed and frightened,—if their drivers are alarmed and terrified, the horses become terrified and unmanageable; while on the other hand, if their drivers are self-possessed and speak calmly and soothingly to their alarmed animals, they will soon begin to lose their fear and regain their confidence. We have often seen horses when anything occurred to excite their fear, neighing for their masters, and if at liberty, running to them for protection, when a few strokes of the hand upon the neck, and a few soothing words would quiet all their fear and make them calm and self-possessed.

Horses, as a general thing, can be far more easily controlled by the voice than by the whip, or rein even. They soon learn the tones of their master's voice, and know what is meant by it, and readily will obey that voice if properly trained, with far less trouble, and certainly with far less pain and suffering, than from the use of the whip. Let it here be remembered that they are not harsh, angry words, or loud oaths and imprecations that do this work of training; but words of calmness, firmness and gentleness. Animals do not like to hear the harsh grating tones of anger or passion, or oaths and imprecations of the furious man, any more than men do; and they will soon, under such treatment, become nervous, fiery and vicious. Many a noble horse has had to suffer the most shameful abuse for that which the harsh, angry voice of his master or driver has made him to be.

A man can easily make his cow nervous, fidgety and kicking, by his nervousness and irritability, and oxen will soon become fractious and unmanageable by the use of harsh, angry words and unkind treatment. All animals learn to love those who treat them with kindness. They love the calm, soothing, gentle tones of their master's voice, and readily obey his call. A calm, gentle word, the humming of a tune, a pat or stroke of the hand, will do far more to make a cow, an ox or a horse gentle and manageable than anything else,—for these win their confidence. The man who controls himself on his farm, in his stable and barn, among his horses, oxen and cows, gains far more every way, in comfort to himself, in safety and security of life and property, and in the yield of dairies, than by following any other course; for he has learned to govern himself, and in governing himself he has learned the secret of governing and managing his horse, his ox and his cow; in a word, everything feels the happy influence of a calm and dignified self control.

Who has not marked the difference between the appearance of a stock of cattle and horses kindly managed, and that of a stock, differently treated. In the one, the animals were peace-

ful and happy, and everything appeared in good humor. The cows, quietly chewing their cuds, are all ready with their full quota of milk, in a healthy condition, fit for the diary; not a foot lifted, and nothing lost from the foaming pails. The horses seem to smile and neigh a welcome to their kind-hearted master; and even the geese and hens join in a merry concert. What more inviting scene presents itself at the twilight hour of some beautiful June day than such a farm yard, the very picture of peace and prosperity! While in the other, every thing is in a flurry and tumult, a perfect "hurly burly." Cows and oxen dodging this way and that, afraid of a blow or a kick, while the very geese and hens fly in terror from the loud, angry and boisterous shouts or horrid oaths, with which the whole herd is hurried into the barn-yard. Nothing seems calm, quiet or good humored. The agitated and trembling cows chew no cud, but yield their heated milk, entirely unfit for the dairy, and perchance half is lost by a luckless kick of the foot, to be returned by a slap from the milking stool, only to make the poor trembling creature more fearful and uneasy.

How much need is there that our farmers should learn the secret of making their "barn families" peaceful and happy. It is sad to see how many farmers permit their animals to be most shamefully abused by rough men and boys, who should not be allowed to have anything to do with the noble animals God has given for the use and comfort of man. Such men and boys are better qualified for the House of Correction than for the farm. Every man will mould and shape the character and disposition of his domestic animals by his own spirit and temper. As he is, so they will be. If his horse, ox or cow is vicious and unmanageable, instead of abusing it, let him blame himself, or rather regulate his own conduct—govern himself—and thereby learn the secret of governing his creatures. G.

Needham, Mass., Dec., 1868.

For the New England Farmer.

RECIPROCITY AND COMBING WOOLS.

The little article which was published in the FARMER of November 28, on this subject, was sent to Dr. Randall by one of his Boston correspondents, with the remark, "I send you the enclosed article which (and it is that which gives it its importance) I judge was written by our friend —. —. ——. What do you think of his facts and logic?"

To the article, which is published in full in the *Rural New Yorker*, Dr. Randall appends the following remarks:—

To the propositions contained in the second paragraph we subscribe fully. But the assumption contained in the next one, that "inasmuch as both the States and Canadas do not produce an amount (of long wool) sufficient to supply the wants of our manufacturers," *therefore* Canada wools if brought in free of duty would not affect the market prices of our own, is wholly untenable. Prices rise in proportion to the scarcity of a product. Every pound brought into the United States from Canada, lessens the scarcity in our market, and takes the place of so much domestic wool which our people could and would otherwise grow to supply the entire demand. The Canadas not having our taxes to pay can, even under our present rate of duties compete with us in our own markets on not very unfavorable terms. Take off the duty, and instead of being "just as much protected by our tariff as our own farmers are," the Canadian farmer will be in effect vastly better protected. The capital invested in sheep production in the United States annually pays to the Federal Goverment about four per cent. in direct or indirect taxes on its entire assessed value. How much additional does it pay in State and local taxes? These differ in different States and localities, and we have not the means now to estimate the average. Let us assume, conjecturally, that it equals three per cent. of the assessed value. Then we have the United States grower paying seven per cent. for what we may term the use of his own country's markets, while the Canadian grower, with reciprocity in wool, would pay *nothing* for their use! The Canadian grower paying neither our government taxes nor the duties levied on other foreigners, would be the most favored producer in the world in the United States markets—made so by United States legislation or treaties!

How long under such circumstances would England remain the "principal long-wool producing country in the world?" If any confidence was felt in Canada that those circumstances would be permanent—i. e. that the United States would maintain free-trade with Canada and the present duties on the wool of other foreign countries—"the Dominion" would soon become the leading long-wool producing country of the world; and it might even seriously compete with our *northern* regions in the production of fine wool. Under such a state of things, it would be decidedly advantageous, in a pecuniary point of view, for at least our long-wool growers to emigrate to Canada!

The attempt to show, inferentially, that our home prices on long wool have been depressed by the tariff, because those prices were higher under reciprocity than now, is supported by no pertinent fact or even argument—but simply by the coincidence of the two circumstances. Alone this coincidence proves nothing. The commercial, physical and political causes which have depressed the prices of wool since the tariff went into effect, are patent to all well informed men. They have been set forth in the resolutions of the National Wool Growers' and Manufacturers' Associations, by similar State associations, and by the agricultural press. They never have been denied, or so far as we have seen, questioned.

We have, in our anxiety to treat with courtesy an honored correspondent, been drawn—rather inconsiderately—into an answer to the positions of an anonymous writer in another journal. This is contrary to a rule of editorial action, the reasons for which will probably be obvious to all—and which we do not propose again to violate, under any ordinary circumstances.

It would appear that "Mentor" is not known either to Dr. Randall or his correspondent; and though the doctor apologizes for having noticed an anonymous article, we are disposed to think that anonymous articles are more likely to be tested on their own merits than articles to which the name of some one known to fame is attached. By their remarks, however, the doctor and his correspondent have

paid us a compliment we never expected. We do not know who their mutual "friend" is, and we do not see how that friend could give any article an importance to which the facts and logic it contained did not entitle it.

The doctor evidently labors under a misapprehension, in the outset. It would be folly to dispute that "prices rise in proportion to the scarcity of a product," or that "every pound brought into the United States from Canada lessens the scarcity in our own market." But the statement that every pound thus brought into the country "takes the place of so much domestic wool which our people could and would otherwise grow to supply the entire demand," is one which requires a very large amount of qualification.

The fact is that the Canada wool does not take the place of the wool which our own supplies, but it fills a place which our own people have failed to supply. A large amount of that imported does not in any way compete with much of the so-called domestic combing. The latter is soft and dull haired, being only quarter or half bred Leicester, Cotswold or Lincolnshire; very little full blood Leicester or Cotswold being produced in the country. Thus, as we have before said, our own people do not produce the wool we want, consequently our manufacturers must have the wool from Canada or stop their mills. They must not only have this, but they must also go to England.

Now if the Canadian does not have to pay the taxes, general and local, that our farmers have to pay, the English farmer surely has to pay heavy taxes and heavy rents; much heavier than the taxes of our farmers, when rent is considered. Still combing wool in England sells at 30 to 40 cents per pound, gold, and is much superior to what our people have yet produced, and it will be some time before they do it. Until such time as they do, we must obtain our supplies from other countries, or our manufacturers must shut up their mills. So far our manufactures have increased much more rapidly than has the production of wool. A year ago there were in the United States over 250,000 pounds of Canada wool of the clip of 1865, and over half a million pounds all told. Now there are not over 50,000 pounds all told.

Last week there were sold in New York 50,000 pounds of Canada wool, which was shipped to England in July last, because the English market then appeared more favorable than ours. But wool advanced here, and it was thought advisable to ship it to New York, where it was sold for 52 cents per pound, gold. Our best domestic combing brings 60 cents, currency, ten cents less than the Canada which paid ten cents per pound duty, and eleven per cent *ad valorem*.

The Doctor says "the attempt to show inferentially that our home prices on long wool have been depressed by the tariff, because those prices were higher under reciprocity than now, is supported by no pertinent fact or even argument, but simply the coincidence of two circumstances."

We were not aware that we did attempt to show or to prove, either inferentially or otherwise, that combing wool was lower now than before the repeal of the reciprocity treaty. We stated a fact which the Doctor does not deny, but calls it a coincidence. Now we supposed the Doctor was philosopher enough to know that coincidences are effects of causes; and the cause of this coincidence is the fact that trade has been bad in England, and the combing wool there is not worth so much as it was in 1865 by from four to eight cents per lb. He does admit the fact that though the demand here has been increased since the repeal of the reciprocity treaty, contrary to the general law of supply and demand, wool has decreased in price; and he does not deny the other fact, that with the repeal of the reciprocity treaty wool fell in Canada, and was twenty cents per pound less last July than in July, 1865, and that to-day it is less by twenty cents than then, still our farmers are getting no more in consequence of the tariff, but the Canadian is getting less. These are the facts which are uncontrovertible.

Though the Doctor should not compromise the dignity of the editorial chair by noticing another anonymous article, we sincerely thank him for the small favor he has so kindly condescended to confer upon us. We are to fame unknown, and may prefer to remain so.

This little incident, however, reminds us of the story of a blacksmith who had gained repute for the keenness of his edge-tools, and who one day forgot in the process of manufacture to apply the steel. On being reminded by his apprentice of the omission, he replied, "Never mind, its name is up!" Other men's names may be up so high as to give an article all its "importance," but ours is not, therefore we are compelled to put on the steel.

Boston, Dec. 11, 1868. MENTOR.

For the New England Farmer.

NEWPORT, MAINE.

Many people in New England who have never visited Maine, form an idea of its climate from the winds which come to them from "Down East." A more mistaken notion cannot be entertained, as I have learned from a recent trip through a portion of the State.

Here I am now in the town of Newport, the surface of which is nearly level,—there being no hill of any note in town. Nearly one-third of its area—some six miles square—is water; there being a large pond nearly in its centre.

The Maine Central Railroad, from Waterville to Bangor passes through the town, and the village is also connected with Dexter by another railroad. Newport Village is a place

of considerable trade, there being some twenty stores, good flour mill, &c. Potatoes are one of the staple crops of this town. One farmer informs me that in his school district the farmers will average more than a thousand bushels each. At East Newport Depot they have bought and sent to Bangor more than twenty-five thousand bushels, and at the Village more than four times as many.

The profit of the business, and the spirit in which it is prosecuted, may be illustrated by a single instance that came under my notice. Two young men, brothers, bought one hundred acres of land in Stetson, a town adjoining Newport, for four hundred dollars. They cut wood enough last fall to pay for the same. The wood was hauled to the railroad and sold. Last spring they burned up the brush, planted patatoes, and this fall they dug seven hundred bushels, which they sold for eighty cents per bushel. On the same field they had a patch of white beans, from which they harvested about twenty bushels. They say they have a good "camp," well furnished with everything but a woman; a deficiency that the young ladies of the neighborhood will probably soon take measures to supply. F.

Stetson, Me., Dec. 11, 1868.

CLOVER IN ROTATION.

In reply to a New York correspondent of the *Country Gentleman*, a farmer in Bucks county, Penn., writes to that paper, that farmers in his section introduce clover less frequently into the rotation than formerly. At a Farmers' Club, where nearly a score of farmers were present who had tried clover, the unanimous testimony was that it was becoming more and more uncertain, while blue or wire grass was taking possession of the soil—indeed, every one said he had been forced to abandon the growth of clover. The writer says:—

Some observations of my own may help to throw light on the subject. There are two fields on our farm which have been cultivated almost from the time of the first settlement by the Quakers under Penn, nearly two hundred years ago. One of these fields is of the red shale or old red sand-stone formation, and on this field clover has never failed with ordinary care. The other field, and indeed the rest of the cultivated land, is the diluvial soil of the Delaware Valley, which is here a rather light, or sandy gravel loam, thirty feet in depth. In the new field, cleared within fifty years, no difficulty is experienced (in the ordinary rotation) in securing a good catch of clover. In the old field clover has failed in a greater or less degree for twenty years, yet a part of the same lot of ground was reserved some eight or ten years ago as a suitable piece on which to practice soiling. Sowed corn, rye, millet, &c., were raised in different succession for five or six years. But the constant diminution of the crops at last revealed what theory did not, that the continued working of so light a soil decreased its fertility faster than an annual liberal supply of manure could replenish it. I then seeded it to rye and clover. The rye was a light crop, but the clover has been the admiration of all who have seen it for two years, and bids fair to do well another year.

AGRICULTURAL ITEMS.

—Solomon advises the sluggard to go to the ant; but the shiftless in our day generally go to their "uncle."

—The experience of this year proves that wheat can be raised profitably in Maine. The midge has not troubled the crops to any great extent.

—An oak in Lawrence, Kansas, is nine feet in diameter and thirty in circumference, and the lowest limbs are forty feet from the ground.

—In a journey through Illinois, D. B. Walsh, Esq., the State Entomologist, discovered that the oyster-shell bark-louse, cannot permanently exist in the Southern half of the State. Trees infested with this insect, taken from the Northern part a year ago, were found to be nearly or entirely free from them, nothing remains but the old dry scales.

—The Hinesburgh, Vt., cheese factory worked the past season 139 days, and manufactured in that time, 1157 cheeses, averaging a fraction over fifty pounds each. About one-half of the cheeses made were sent to market by the company, mostly to Burchard & Co., of Boston, it selling in that place from 15½ to 17½ cents per pound. The total amount of money received for the sale of cheese, and gain on hogs fed at the factory was $19,543.69. The number of cows furnishing milk for the factory varied from 250 to 600. The total number of pounds of milk manufactured was 1,219,286; total pounds of cheese made 123,093; being nine and nine-tenths pound of milk to one pound of cheese.

—Mr. Thomas Reynolds, of Hadley, Mass., has recently lost three cattle through a disease which is strange in that locality. The cattle have all died early in the morning, having exhibited no previous indications of bad health, and having eaten well the evening before. A *post mortem* examination shows a disordered digestion, and that the coatings of the stomach and of the intestines are much diseased, also the liver and gall bladder, the latter being thickened. The lungs appear perfectly healthy. This disease resembles, in some of its aspects, the Texas cattle disease. But as poison is said to produce similar effects, it remains to be determined whether these cattle died from that or from some other cause. These cattle came from Vermont, where they were pastured during the past summer.

EXTRACTS AND REPLIES.

MICE GIRDLING TREES.

Some years since you kindly published a communication from the writer, on "How to prevent mice girdling trees." As I am unable now to refer to the date of the FARMER in which it appeared, I will, with your permission, repeat it in substance, for the information of "Jack" or any other of your correspondents.

Place around your trees tubes or cylinders made from old waste tin, stove funnel, yarn cans, sheet iron, or zinc, any quantity of which may be had for the picking up about stove or tin shops, or perhaps on your own premises. The tubes may be from two to eight inches diameter, and from six inches to any length you may desire and can find material for. A tinman's shears and vise are all the tools necessary to put them in shape for use. Cut to the sizes you want, turn over the edges one-eighth of an inch of two sides in opposite directions, bring it round a tree, clasp it by hooking the parts turned at the edges together, press down a little into the earth and you have a mouse-proof shield that will not easily get displaced, that can be put in position and removed in ten seconds, and will last a life-time with very little care. I have used, and so have some of my neighbors, these shields for fifteen years past around trees growing in places where mice are most likely to abound, but have never known of a tree being injured by the vermin when thus protected, while other trees in the same locality, left unprotected, or banked up, have been ruined. The expense of these shields is trifling. A tin worker made a hundred of various sizes for me some fifteen years ago, at a cost of less than three cents a piece. Most of them have been put around trees every winter since, and they are now as serviceable as when first made. I use them in spring about young cabbages and other plants, and they prove a good protection against cut and slug worms. I sometimes fill the circular space around a tree with coal ashes and let the shield remain the year round as a preventive of the operations of the apple and peach tree borer.

If your correspondents "Jack" and "J. J. T." will fairly test my method of "circumventing the varmints," if it fails, they may draw on me at sight for all trouble and expense. R.

Lowell, Mass., Nov., 1868.

COTSWOLD SHEEP.

Since the publication in your paper of my article upon the profits of Cotswold sheep, I am almost daily in receipt of letters requesting me to give the result of my experience in breeding and crossing them upon other breeds. To comply with these requests by letter would take nearly the whole of my time. I will, therefore, with your permission answer them in a series of articles during the coming winter, through your valuable paper.

But first let me inquire of such men, are you readers of the NEW ENGLAND FARMER. If not, will you immediately subscribe for it, and endeavor to induce your neighbor to do the same thing, for I cannot consent to ask the editor to furnish us with the ready-made brick, without first offering him the straw to make it of. There is not a reader of this paper who cannot with very little trouble, induce some one of his friends or neighbors to subscribe for the NEW ENGLAND FARMER. Now friends will you do it?

I have many letters saying that thousands of sheep will be "slaughtered for their pelts;" "we are becoming heartily disgusted with raising fine wool and keeping fine sheep." To all such I would say hold on! There is a better way than to go into the indiscriminate slaughtering of sheep for their skins, and it is my purpose to show a better way. T. L. HART.

West Cornwall, Conn., Dec. 8, 1868.

APPLICATION OF ASHES TO FRUIT TREES.

I often make use of ashes around my trees,—certainly as often as once a year, and believe it to be of great benefit to them. But, like some of your other correspondents, I have learned not to apply it in contact with the bark of the trees, as they become moistened and form lye often too strong for the growing wood. I generally use about one quart of ashes to a tree, scattering it around them as far as the roots are supposed to extend underneath. My large trees, in bearing ten or twelve years, receive an application of from six to eight quarts of unleached, or double the quantity of leached ashes to each tree, scattered in same manner. I never permit the ashes to lie upon the ground in any place more than one inch in depth.

It is the excessive use of proffered blessings which renders them a curse. Let us profit by each other's experience, truthfully, and candidly given; and thereby avoid errors, which require time and capital to correct.

In this connection allow me to remark, that I fully appreciate the wide influence, which your excellent journal is exerting, in advancing the great and growing interests of agriculture and horticulture. I like the tone of your paper. It has a tendency to make young men satisfied with their homes, and teaches them the manhood, *independence* and honor of a farmer's life.

SOLON BURROUGHS.

Vergennes, Addison Co., Vt., Dec. 4, 1868.

REMARKS.—It may not be improper for us to remark that the foregoing is from a practical nurseryman.

APPLICATION OF MANURE.

In your issue of November 28, I was not only pleased with the closing remarks of W. S. Grow, but with your most pungent remarks in reply.

The most economical application of manure is a study of the greatest importance, and requires the closest observation for a period of many consecutive years. In my observation for twenty years in the practical application of manure, I am convinced that what is ordinarily termed "mulching," or the application of thoroughly decomposed barn-yard manure to the surface, to be the most economical use of this class of fertilizers. From this experience I am convinced that one cord of manure applied to the surface on wheat ground at the time of sowing, or on ground intended for corn, in the late autumn, or applied to all varieties of large and small fruits, is worth three cords ploughed or dug under to a depth of eight inches. My soil is of a gravelly loam, resting upon a clay subsoil. Upon more tenacious soils or upon deep drifts of shale, a different application may prove advisable.

Hoping to hear from our friend Grow, and others of your intelligent country gentlemen, I am yours truly. E. M. BRADLEY.

East Bloomfield, N. Y., Nov. 30, 1868.

KING OF TOMPKINS.

I see in the FARMER of last week, a notice of the King of Tompkins County apple, which hardly answers for this locality.

Some fifteen or sixteen years ago, while living in Tompkins County, I came across this apple, and thought it the handsomest and best apple I ever saw. I sent some scions to my father in Concord, who grafted them into two trees in the orchard. They

have grown thriftily, and are now the largest trees in the orchard, but never get more than a bushel or so to the tree, and what is worse, they rot badly on the tree, and after they are gathered. I have noticed also, that several other varieties that I sent at the same time, from Central New York, have the same defect,—that of rotting badly on the tree. The Northern Spy was one of these.

We keep the King apple, not from any profit pecuniarily, but because the housekeepers think it is the best of any for cooking purposes. Many things raised on the farm, besides these apples, are not to be valued by dollars and cents. F. G. PRATT.

Concord, Mass., Dec. 7, 1868.

ASHES AND METAL TUBES TO KEEP MICE FROM TREES.

A correspondent in the FARMER of November 28th, desires to hear from others in regard to the effect of ashes placed around fruit trees. Several years since I had some apple and peach trees from two to five inches through that were troubled by borers. I placed tins in the form of a tube around the trees, ten inches in height, leaving a space between tree and tin of about two inches, and filled in with hard wood ashes. The result was that most of the trees so served, especially the peach and smaller apple, did not swell their buds the following spring, and I found upon removing the tins, that the bark had become black and slippery, readily parting from the wood. Six out of ten trees were dead, while other trees in the same yard, dealt with in precisely the same way, except that instead of filling in with wood ashes, I filled in with sifted coal ashes, were doing well and started finely. I have trees with tins about them filled with coal ashes that have not been removed in the last four years. The trees thrive well and I can find no vestige of the borer, unless it may be in rare instances up about the lower limbs. I think sharp sand filled around the tree would be quite as good as coal dust—perhaps better.

If Mr. W. V. Tainter will try the metal tube about his "thousand fruit trees," without *any* filling in, he will find his trees all right next spring, so far as girdling by mice is concerned. R.

Lowell, Mass., Nov. 30, 1868.

ANOTHER CURIOUS FREAK OF NATURE.

A late number of the FARMER gave us an account of a lamb which saved its owner the trouble of marking it, as it came with a distinct imitation on its side of the initial "L" with which the owner marked his sheep. Another singular case occurred on the farm of Ingham Chandler, Esq., of this place. A lamb was dropped that appeared to be perfect in all respects, except its head, to which was attached by a small ligament, perhaps an inch in diameter, a sack nearly as large as the head, which, from its location, resembled an extensive "waterfall." This protuberance, like a bladder "blown up," yielded to the touch, but immediately resumed its former shape on the removal of the pressure. The lamb died. Is this a warning to the wearers of "heavy waterfalls?" ZEN.

Washington Plantation, Me., Dec. 2, 1868.

PARALYSIS OF A HORSE'S LIPS.

I notice in your issue of this week "an interesting case of paralysis." The muscles that control the movements of the lips in grasping are what are called the "*orbicularis oris*." They are situated within the border of the lips, and are attached to the bones called superior and inferior maxillary bones. Some anatomists call them the posterior and anterior maxillary bones. The posterior maxillary bone for the most part holds the muscles named. This bone extends from that part of the skull where the tusk is found in the upper jaw, up to the "*malar bone*" at the apex of the protuberance below and back of the eye.

The connection of the muscles of the lips is along this bone and under the base of this protuberance. Any bruise upon this bone, or slight fracture, might involve the muscle. If inflammation is found, reduce it; if not, a slight blister or stimulating application may help it. The injury is undoubtedly mechanical, and requires local treatment.

T. S. LANG.

North Vassalboro', Me., Dec. 5, 1868.

WINTER CARE OF POULTRY.

The question, "How to make hens profitable during winter?" is constantly being asked and as often answered. I propose to give a few hints in regard to it. If they are expected to lay in the winter, one requisite is to have them of suitable age. April and May chickens are the best to keep as layers; and in selecting, choose those with broad breasts, plump and full forward. Now, this is not generally believed; but it is true that broad, square breasted hens, will lay longer than any others.

Having the best pullets to start with, give them the warmest place possible, and be sure to give them plenty of light. Laying hens should have low places to roost, and should have the kindest treatment. They should have plenty to eat and have clean water always before them. Meat and bones pounded before burning, are very useful and perhaps indispensable where the most profit is wanted. One great thing is to be on intimate acquaintance with the hens, so that when one goes to feed them they will know that it is a friend, and not an enemy ready to throw something at them. H.

Norwich, Vt., Nov. 30, 1868.

FAILURE OF SCIONS.

In regard to the failure of scions spoken of by your correspondent, "Jack," in the Monthly FARMER for September, I would say that the trouble was probably in the scions or in the setting of them. Have good scions and set them properly, and I don't think the weather will affect them. I cut my scions some warm day in Febuary or March, before the buds have started, pack them in green-wood sawdust and keep them in the cellar until I want to use them. I set them the past season from the first of April until the first of July, and don't know as I lost a single stock. J. W. G.

Cummington, Mass., Oct. 28, 1868.

EARLY PEAS AND EARLY ROSE POTATOES.

I find that the offer I made in my advertisement to furnish packages of my early peas at 25 cents is likely to lead to more applications than I could well supply. I presume I am the only one to blame; but I meant to say that I would send a 25 cent package of peas to every one who ordered Early Rose potatoes from me, if they desired them. From a single pound of Early Rose planted by themselves, I raised 176 pounds,—my largest potato weighing one pound and nine ounces. W. I. SIMONDS.

Roxbury, Vt., 1868.

SALTING HAMS.

I have this day been salting my pork hams after the following method: 3 gallons water; 4½ pounds salt; 1½ pounds brown sugar; 1 pint molasses; 1 ounce pearlash. Boil and skim. Let the hams remain in the mixture from four to six weeks. When taken out soak them twelve hours and

smoke to your liking. I have practiced this method thirty-two years. I have never eaten any hams that would equal them in goodness. The meat is tender, sweet and juicy; not salt and dry as most of the hams are that we buy at the stores. E. L.

Long Plain, Mass., Nov. 21, 1868.

FANCY OR GILT-EDGED BUTTER.

I have seen in the Produce Market Report, several times the past season, that "Fancy Butter" is quoted from thirty to forty cents a pound more than the best of common butter. Now I would like to inquire through the FARMER what that butter is and how it is made? JACOB G. HOVEY.

East St. Johnsbury, Vt., Dec. 7, 1868.

I would like to know how the "Gilt-edged Butter" is made that is spoken of in the FARMER? Will some one that knows how, please inform us?

L. R. PARTRIDGE.

Braintree, Vt., Dec. 12, 1868.

REMARKS.—We submit these inquiries to those who know how to make "gilt-edged" butter, with the hope that some one will reply. We are not, however, very sanguine in our expectations that every particular of the process of making "fancy butter" can be put upon paper. The expression "gilt-edged" as applied to butter, or to commercial paper, means, we suppose, simply extra, premium, superfine,—*the* very best. There are "gilt-edged" articles of all kinds in the market; and there are, also, "gilt-edged" farmers, "gilt-edged" housekeepers, "gilt-edged" mechanics, "gilt-edged" men and women, boys and girls, in every department of life, all the way up to Presidents and Kings; but who can divulge the secret of their superiority? Can they themselves impart it to others?

We were informed by one of the dealers in the "gilt-edged butter" alluded to in our report of the market, that in one case the woman who had charge of a dairy which had for some time produced a tip-top article of genuine "fancy butter," was obliged to leave the establishment for a few months. Notwithstanding all the advantages of her example, and of her directions to her successor, the butter made during her absence, from the same cows, in the same room, and with the same utensils, depreciated in value some twenty cents per pound. On her return, however, the butter immediately resumed its former excellence.

Other cases of failure were spoken of, where intelligent men had failed in their efforts to produce the true "gilt-edged" article of butter, though no expense was spared in the selection of cows, in feeding them, or in furnishing the necessary manufacturing conveniences.

We do not state these facts to discourage any one in their efforts for improvement. Nor do we doubt that considerable butter is every year produced by dairy women in the country which, if offered by a well-known maker of the "gilt-edged," would pass as a first rate "fancy" article.

This leads us to remark that the *reputation* of the maker is an important item in the *character* of the article produced. Families who pay "gilt-edged" prices demand assurance of the "respectability" of the source of the article; assurance of neatness and care in every process of its manufacture. We have often heard the remark from a neat farmer's wife, "I should dislike to be obliged to use butter bought in market, without knowing anything about where it came from, or who made it." Nice city people have the same delicacy of feeling and are willing to pay a round price for butter that not only looks and tastes all right, but which they know, and can assure their friends who eat with them, was made with clean hands.

This is all we know about "what that butter is, and how it is made."

CHEAP WASH FOR BUILDINGS.

Will you please inform me through your columns of some durable and cheap wash for buildings. Something of the kind has appeared in your paper, but I am unable to procure it.

S. N. HOWARD.

West Bridgewater, Mass., Dec. 14, 1868.

REMARKS.—The monthly issue of the FARMER, with its annual index furnishes excellent facilities for preserving and referring to the valuable information which appears in its columns. At page 47 volume for 1868, is an editorial article on "How to Prevent the Decay of Wood," in which we introduced the following rules for making whitewash, given in the *Scientific American*, to which we presume our correspondent alludes:—

"Take a clean, water-tight cask and put into it *half a bushel of lime.* Slack it by pouring water over it boiling hot, and in sufficient quantity to cover it five inches deep, and stir it briskly till thoroughly slackened. When the lime has been slackened, dissolve it in water, and add two pounds of *sulphate of zinc* and *one of common salt.* These will cause the wash to harden and prevent its cracking, which gives an unseemly appearance to the work. A beautiful cream color may be given to the wash by adding *three pounds of yellow ochre;* or a good pearl or lead color, by the addition of *lamp or iron black.* For fawn color add *four pounds umber, one pound Indian red,* and one pound *common lamp black.* For stone color add *four pounds raw umber* and *two pounds lamp black.* When applied to the outside of houses and to fences, it is rendered more durable by adding about a pint of sweet milk to a gallon of wash."

KICKING COWS.

Is there any remedy for a kicking cow, besides tying her in some of the various ways that have been recommended? I have a valuable cow for milk, gentle every way and appears to have a gentle disposition; but the instant that I take hold of her teats to milk she will kick me over if she can. If you or any of the readers of the FARMER can tell me of a way to prevent or cure her from kicking, you will greatly oblige E. L.

Long Plain, Mass., Nov. 21, 1868.

REMARKS.—Something a little extra by way of food given to a cow while milking will sometimes prove effectual. A confirmed kicker, however, is a bad subject, and the cheapest way often is to

make beef of her. In his book on American Cattle, Mr. Allen says, that he has milked valuable cows addicted to kicking by taking the iron *forceps*, used for holding cattle by the nostrils, and tying them by a rope or strap to a beam over head, and drawing up their noses at an elevation and there securing them while they are milked. Some milkers are in the habit of pressing sharp finger nails against the sensitive teats, and then abuse the cows because they kick.

A COUGH IN A HORSE.

I have a valuable mare that has a bad cough. She had the horse-ail when I bought her last spring, and has not got rid of her cough yet. She coughs but very little on the road, but runs at the nose when at work. Whether she has recovered from the horse-ail or not I do not know, but think she ought to have done so before this. She eats as well as any horse, and appears well, except the cough, which keeps her thin of flesh. Can you or any of your subscribers give me any information about it, or suggest a good remedy?

A SUBSCRIBER.

Marshfield, Mass., Dec. 16, 1868.

REMARKS.—Notwithstanding the skill of our best physicians, they are often unable to cure coughs in their human patients. A cough is rather a symptom than a disease. It is often caused by the irritability of the air passages, occasioned by previous disease. A chronic cough in horses is often occasioned, says Dr. Dadd, by indiscretion in the treatment of influenza, distemper, and disease of the respiratory apparatus. It is also one of the effects of liver disease, and sometimes of worms. Too much dry fodder, especially chaff, often aggravates a cough. Carrots and other roots and green feed may be advantageously used. Give your horse a warm stall, with bedding a foot deep, with moist cut feed, a little laxative medicine and not much hard work. If others have a sure cough remedy we hope they will prescribe.

GIRLS ON THE FARM.

If it is necessary to the interest of the farm that the boys remain at home, it is no less important that the girls remain there also. Perhaps keeping the girls at home would be the most successful means of keeping the boys there, as youth is always attracted by beauty and grace. The great call for help in cities and manufacturing districts induce great numbers of our middling class of farmers' girls to leave home or situations in farmers' families and seek employment in shops or factories. Although they may earn nominally great pay in these places, their fancied wants require the expenditure of nearly all their wages; and in numerous instances their health becomes sadly impaired, and many of them return home with pale faces and impaired constitutions, instead of the rosy cheeks with which they left home, and with a growing dislike for the plain and substantial things of the country and farm. It would be much better for farmers' girls to stay at home and help their mothers, and their fathers, too, if he has not boys enough. Although they may not have so many fine clothes, costly jewels, and city fashions, they will possess that which is far more desirable—common sense and robust health.

We have Agricultural Colleges for our boys, and by and by these educated and practical young farmers will want healthy and qualified wives. Therefore our girls must wake up, and consider the prospects before them, and embrace every opportunity for fitting themselves for healthy and honorable positions.

It is not unlady-like to be able to superintend the entire domestic concerns of their own households. The servants, if such are employed, are far more likely to be faithful and economical if the mistress knows whether the bread and butter are made right or wrong. The ignorance of the mistress of the house in the details of housekeeping is the great cause of the trouble with the Bridgets, of which we hear so much. When I hear ladies complaining of the ignorance and awkwardness of their help, I am often glad that they do not know what I think is the main cause of all these domestic difficulties. "Good workmen never complain of tools." Good generals are always supported by efficient and reliable officers, and by brave and successful soldiers. Good housekeepers are usually fortunate in securing good help, because they can direct and educate their servants. Housekeeping is an art and science that can be acquired only by much practice. There is no royal road to this, any more than to any other branch of our education. It is not acquired at high schools, nor in shops and factories. In factory and shop work girls expect to serve a more or less extended term of apprenticeship, but as to housekeeping very many young ladies seem to think that no apprenticeship or experience is needed. Is it strange that domestic infelicities and even divorces should be fearfully on the increase?

MRS. TRASK.

Reading, Mass., Nov. 27, 1868.

MICHIGAN AND KENTUCKY CORN.

By a late number of the FARMER I see that my Kentucky friends are bragging on large ears of corn. On reading the account of their big ears, my man said "We can beat them," and on going to the crib brought in an ear 11¾ inches long, with 22 rows and 55 kernels in a row and nicely tipped out, making 1210 grains in all. The variety is known in this neighborhood as the "Bloody Butcher," of which I send you a few kernels, as a specimen. If this ear is beaten we will dig deeper into the bin. Hudson is in the Southern part of the State, near the line which separates Ohio from Michigan. I came from Vermont two years ago, and am much pleased with my location.

Hudson, Mich., Dec. 9, 1868. D. M. BRIGGS.

REMARKS.—The kernels received are beautifully striped with deep red; the ground being faint yellow and white. In shape the kernels are oblong and about half an inch in length.

SCRATCHES AGAIN.

For the cure of scratches I would suggest that milder remedies be used than most of those named by "Subscriber," in the FARMER for Dec. 12.

The last one, however, mentioned by him, that of white lead and linseed oil, I regard as the best I ever tried. Wash the horse's legs clean with castile soap and soft water, rub dry, according to direction of "Subscriber," then apply the paint. But external remedies will generally give only temporary relief. Remove the cause, and the trouble will cease. I believe it is conceded that the cause is impurity of blood. Keep the horses blood in good condition and he will never have the scratches. To do this give common epsom salts. I have cured severe cases with no external application. I make a practice of giving my horses salts every fall. Consequently they are never troubled with this disease. For a dose, I use a table spoonful once a day for three days in succes-

sion; then omit the medicine for three days, and so alternate it, until you have given a pound, more or less, according to the necessities of the case. If the horse is very bad, it will require double or treble the above dose,—exercising judgment, of course. I write from experience. Try it. An ounce of prevention is worth a pound of cure.

A FRIEND OF THE AFFLICTED.

Newport, N. H., Dec. 13, 1868.

PARALYSIS OF A HORSE'S LIPS.

I discovered this fall that my horse had lost the use of her upper and under lips. She would seize a mouthful of hay with her teeth, but could not get it where she could grind it. Consequently she grew poor very fast. I gave her some physic and bled her in her under lip near the teeth. She immediately improved, and is now well. I also washed her head in wormwood and urine. I ascribed her difficulty to a cold in the first place.

Hinsdale, N. H., Dec. 8, 1868. A SUBSCRIBER.

GRAPE VINES ON TREES.

In reply to an article in your paper, recommending planting grape vines at the foot of trees, I would say, I once planted one in that way. While the tree remained small, I was benefited by the grapes. But as years rolled on, the tree became a lofty one, so that the fowls of the air lodged in the branches thereof and devoured the grapes, while I, a dweller here below, must be content to take up with such as fall to the ground, which I generally find to be wormy and rotten.

LEANDER MORTON.

Hatfield, Mass., Dec. 6, 1868.

ASHES INJURIOUS TO APPLE TREES.

I notice that several of the correspondents of the FARMER caution the public against adopting my recommendation of putting ashes around trees to protect them from mice. I said it should be applied as late as possible before winter sets in. Brother Tainter put the ashes against the trunks of his trees in June. As the tree is then full of sap, and the bark strained to its utmost by the flowing sap, I should not dare to pile ashes around the trunks at that time, affected as ashes must be by heavy dews and hot suns. I may refer brother Tainter to the young orchard of C. Gray, Esq., of Wilton, not more than fifteen miles from his place, on which ashes has been used as recommended by me.

East Jay, Me., Dec., 1868. JACK.

A CROSS OF MERINO AND COTSWOLD.

I wish to inquire through the columns of your paper whether I can make it profitable to make a cross on my sheep by using a pure blood Spanish Merino buck on some pure Cotswold ewes. Will you or some of your correspondents inform me?

A CONSTANT READER.

Alstead Centre, N. H., Nov. 2, 1868.

REMARKS.—We are very fortunate in being able to refer you to some remarks upon this subject on another page of this number, by a gentleman of large experience in the wool business, and shall be pleased to publish more direct answers to your inquiry, as many wool growers are interested in the subject of the improvement of their flocks.

MILK OF JERSEY COWS KEEPING SWEET.

One of our milk men says that the milk of a Jersey cow in his herd will keep sweet from ten to twelve hours longer than any other milk he has. Is it because the milk is richer? Who will tell? If it is, as the man referred to thinks, because the milk is richer, it will, or should, add much to the value of a cow that gives rich milk. Is the subject worthy of discussion? It is new to me, and may be to many of your readers. P.

Mast Yard, N. H., Oct. 29, 1868.

SCRATCHES ON HORSES.

In the last FARMER I see an inquiry for a remedy for scratches. I have lately cured the worst case I ever saw with two applications of white pine turpentine, thoroughly rubbed on.

Westboro', Mass., Nov. 23, 1868. W. S. GROW.

DUTCH CATTLE.

From expressions that we have heard from cattle breeders, we believe that the reports which have been published of Mr. Chenery's late sale of stock, particularly of his Dutch or Holstein cattle, have made an erroneous impression on many minds. The idea seems to be that the prices obtained for his half and three-fourths blood Dutch, were an indication of the popularity of the pure Dutch in this section, which we have good reasons for believing is not correct. Those in attendance at his sale were probably mostly breeders, who wished for pure blood or none. We find the following note from Mr. Chenery in the last *Prairie Farmer*. Perhaps it may be proper for us to say, that we publish it in justice to the Dutch cattle, and not at the suggestion, or even with the knowledge of Mr. Chenery:—

In your notice of the auction sale of live stock at my farm, on the 12th inst., you say that "but three Dutch cattle were sold; one for $80, one for $55 and the other at $35." As this is likely to lead to very erroneous impressions with regard to the value of my "Dutch" or "Holstein" cattle, allow me to say that none of my pure bred Dutch cattle were offered or advertised for sale at auction. The auction catalogue embraced only ½ and ¾ blood, yearling heifers and heifer calves (got by bulls out of common and grade cows). Those sold at above prices were ½ blood calves, and, as you say, the balance were withdrawn. I may add that since the auction, some of them have been sold at private sale as high as $200.

Boston, Mass. WINTHROP W. CHENERY.

ABOUT HORSES.—From the *Rochester Union* we take the following:—

Horses as a general thing get too much licking and too little feed. If a man loses his hat while driving his horse, he licks the horse to pay for it. If he runs into another wagon through his own carelessness, he licks his horse to make it all right. If his horse slips or stumbles, he gets licked for it—if he does anything he gets licked, and if he *don't* do anything he gets the same. A great many horses know "a sight" more than their drivers, and if they could change places with them, society at large would be the gainers, and so would horses.

THE COMPOST HEAP.

Can specific additions be made to it, to adapt it to particular soils and crops?

Compost heaps consist essentially of carbonaceous matters and animal manures. These last act as a ferment, and produce fermentation and decomposition, and reduce the whole mass to a uniform consistence. Compost heaps also contain more or less salts and minerals, which modify the chemical actions which take place in the mass. Where the heap contains a sufficient quantity of animal manure it may be said to be fitted to all soils requiring manure, and to all crops. But the making of a compost heap supposes that we have not a sufficient supply of animal manures, and that we are attempting to supplement the want by preparing other material to take their place.

Composts are sometimes prepared by combining salts and minerals with peat and muck; but on most soils this is a failure. The housewife may mix the materials for a good loaf of bread, but if she omits the yeast she will not have good bread. So if the animal manure is left out of the compost heap, the result will be a very imperfect compost. The fermentation necessary to produce decomposition and uniformity will not take place.

Some soils contain an abundant supply of certain elements of fertility and are deficient in other elements. So, also, some crops require a large supply of certain kinds of plant food. Now shall we apply our compost indiscriminately to all soils and all crops? Will this be good economy?

To answer this question understandingly, we need a knowledge of the nature and condition of the soil, and of the wants of the particular crops we propose to raise. The science of the agricultural chemist and the experience of the farmer are both needed to enlighten us.

If manure is applied to the new soils of the West, it is found that they produce an exuberant growth of straw and stover, and actually less grain than when no manure is used. The soil contains all that is needed for the growth of wheat and corn, in abundance. After two or three crops, or more, have been taken from it, lime, ashes or salt may be applied with advantage. But quite a number of crops may be taken before animal manures are required. But, after a time, the humus is decomposed, the nitrogen is exhausted, and the crops diminish; as they have already in Illinois, where the crops of wheat average only eleven bushels, instead of twenty-five or thirty. Here experience confirms the decision of science, that the elements upon which the wheat feeds are exhausted in the surface soil, and they must either be brought up from the subsoil, or added to the surface. Deeper ploughing and the addition of lime and potash may renew the crop for a time. But soon the soil will require carbon and nitrogen and minerals, because decomposition and frequent cropping have taken them out of the soil.

If a soil contains a good supply of humus the addition of lime and some stimulating manure will give good crops. If it is light and sandy, it requires carbon and potash. If it is cold and heavy, it wants carbonaceous and animal manure to improve its mechanical condition, as well as to stimulate its fertility. Grains and seeds require a good supply of phosphates to produce them in perfection. Grass stalks and straw require nitrogen,—as night soil, Peruvian guano and other animal manures, and urine. Potatoes, turnips and roots, are benefited by lime, in any form, and ashes.

Now with these general facts before us, how shall we manage our compost heaps so as to derive the greatest advantage from them? Shall we apply them to all soils and crops alike, or shall we divide them into several parcels, and make such additions to each as will fit it for the particular field or crop to which we wish to apply it?

Shall we add to the compost we use as a top-dressing for grass, Peruvian guano, or follow it with the water cart, sprinkling the urine from the tank in the cellar? Shall we add to that which is to be spread upon clover, plaster or lime? and to that which we propose to use for potatoes or roots, superphosphate and ashes? Shall we add to that which we design to appropriate to wheat, lime and as much animal manure as we can spare? Shall we add hen manure, urine or guano to the small portion intended for our lettuce, asparagus and peas? To be sure these last will be rapidly used up in the soil; but then the crops to which they are applied, will have completed

their growth, and they will be no longer wanted.

Cannot something be done in this way to increase our manurial capital, and enable us to obtain from it a larger return?

The compost heap is the farmer's bank, and it is every year becoming more important that we should make our investments in the most productive stock.

A compost heap, well fermented and worked over until it is fine and of uniform consistence, is a basis to which we may apply the results of science and observation. Shall we not, then, make experiments in this direction and observe carefully the results? We are too apt to drive in the beaten path and confine ourselves to the ruts in which we are accustomed to travel. If we would break out of the old path, and make experiments with freedom and boldness, we might sometimes achieve results that would surprise us, and learn how to use to the best advantage our scanty capital.

He is not the most successful merchant or manufacturer who commands the largest capital, but he who uses to the best advantage the capital he does command.

HAMPDEN COUNTY, MASS.

The annual meeting of the Hampden County Agricultural Society, was held in Springfield, December 16. The matter of the debt of the Society was referred to the directors. The following is the result of the election of officers:—

President—George Dwight of Springfield.
Secretary—J. N. Bagg, West Springfield.
Treasurer—James E. Russell, Springfield.
Vice Presidents—T. W. Wasson of Springfield; N. T. Smith of West Springfield; V. N. Taylor of Chicopee; George Taylor of Westfield; Sardis Gillett of Southwick; L. H. Ball of Holyoke; William Lyman of Wilbraham; C. S. Newell of Longmeadow; Frank Morgan of Palmer; Gilbert E. Fuller of Ludlow; S. L. Reynold of Monson; Enos W. Boise of Blandford; J. W. Holcomb of Chester; J. W. Gibbs of Russell; R. H. Barlow of Granville; Wilber Wilson of Agawam; Alured Homer of Brimfield; and F. T. Moors of Tolland.
Directors—L. J. Powers, Tim Henry, H. Alexander, J. H. Demmond, and William Pynchon of Springfield; R. Brooks of West Springfield; C. L. Buell of Ludlow; William R. Sessions of South Wilbraham, and Phineas Stedman of Chicopee.

—Mr. R. Murray, who raised potatoes the past season at the rate of 350 bushels to the acre, and onions at the rate of 622 bushels to the acre, stated at a late meeting of the Waltham, (Mass.,) Farmers' Club, that he had found air-slacked lime to be a sure cure for the onion maggot.

AGRICULTURAL HONORS.

A committee appointed by the State Agricultural Society of Virginia, to offer in behalf of the Society honorary testimonials to each individual of Virginia who, previous to 1853, had discovered, or introduced, or brought into use, any principle, process or facility, or generally any invention or improvement by which important value had been gained for the agricultural interests of Virginia, have published their report. From a synopsis of this report by the editor of the *American Farmer*, we copy the following:—

General Washington in addition to his writings and the exemplification of all the maxims of good husbandry on his farms, most materially advanced the agricultural interests of the State as "the father of the system of internal improvement in Virginia."

The services of Chief Justice Marshall as the first president of the first agricultural society of Virginia are properly recognized.

President Madison, while a member of Congress, sent from Philadelphia to his farm, in Orange county, a small parcel of timothy seed.

Mr. Abraham B. Venable, while a Senator in Congress, likewise sent from Philadelphia to his farm, in Prince Edward, a small parcel of red top or herds grass.

To Mr. Ryland Rhodes, of Albermarle, is given the credit of the first hill-side plough.

To Commodore Thomas Ap. Catesby Jones of Fairfax, the introduction, as early as 1822, of the substratum or subsoil plough.

To Mr. John Murphy, of Westmoreland, the introduction of a threshing machine.

To Mr. Cyrus H. McCormick, of Rockbridge, the invention of the reaper.

Mr. John Harness, of Hardy county, was the first to practice the cutting down of Indian corn with its stalk entire, to be shocked in the field, and thus used as the food of cattle.

These are but a few of the names of which honorable mention is made in this report. Would it not be well for the Agricultural Societies and Boards of other States to appoint a committee to perform a similar duty to the memory of those men who have in various ways contributed to the improvement of the husbandry of their respective localities?

We said *duty*. Is it not policy as well? The Old Dominion has always honored farmers. The business is respectable there. We talk of its being so in New England. But somehow we fail to convince our sons and daughters of the fact. We try to make home pleasant, by furnishing our families with a variety of reading matter. We buy biographies of men who have made their mark in the professions, in arts, manufactures, commerce, &c., and then wonder that the boys and the girls, too, who read them, are dissatisfied with home life. Men have made their mark in agricul-

ture; have introduced valuable breeds of animals; invented labor-saving implements; cultivated new fruits, vegetables, grains, grasses, &c., but as they pass from the stage they are soon forgotten.

When there were few associations of farmers in the country, and few publications devoted to their interest, this may have been unavoidable. But now, with agricultural Societies or Boards in nearly every State and county, and in many towns, we believe that something may be done towards introducing that "animating spirit of collective bodies" which the French call "*esprit de corps*," but for which unfortunately the English language has no corresponding term. It is seen in "The Members of the Bar," in "Boards of Trade," in mechanical "Unions," in college "Alumni," almost everywhere except among farmers.

It strikes us that the Virginia Society has made a move in the right direction. We commend their example to the Agricultural Boards of our Northern States.

For the New England Farmer.

FARM ACCOUNTS.

The close of the year is a suitable time for reviewing the labors of the season. The farmer, as well as the merchant, should make out his balance sheet, showing the profit or loss on the year's transactions. He should know what crops have paid best, and what kind of tillage has been most successful. This can be easily ascertained by keeping a strict account with each field of corn, grain or potatoes.

Yet very few do this. "It is too much trouble," says one; "I doubt the use in being so particular," says another; and so the greater part of farmers find *some* excuse for not keeping farm accounts. If they live through the year without getting in debt, they are satisfied. Well, it is a satisfaction to know that debts are not accumulating, and quite as satisfactory to know that our property is becoming more valuable in consequence of labor properly applied, and of economy in the management of our business. Now I believe that in any neighborhood, and among any given number of farmers, those who keep the closest account of their expenses will be found to be the most prosperous.

At New Year's, or at any time he chooses, let a farmer take an inventory of his stock, tools, grain on hand, and everything that goes to make up his stock in trade. Then let him keep an accurate account of the labor done and expenses paid, during the year, and give credit for everything sold. When the year is completed, let him take another inventory, and strike a balance. He will then ascertain whether his farm has been profitable or not.

How many readers of the NEW ENGLAND FARMER will adopt this course next year? I presume many do so now; but I want to have the number greatly increased, and when the year is completed, let the number be reported. If any regret the course, or find it "don't pay," let them say so, and give their reasons. Try it. Or, if you do not choose to take the whole farm, try the experiment with an acre or two of corn, or wheat, or potatoes, and give us the results. GRANITE.

Bloomfield, C. W., Dec. 12, 1868.

For the New England Farmer.

SMALL LOTS.

The advice is often given to farmers by the papers to remove all unnecessary walls and division fences so that the fields will be as large as possible for the more convenient use of the plough, cultivator, horse rake and mowing machine, besides saving the land upon which the ordinarily numerous division walls or fences stand.

There may be cases where this course can be adopted with profit. On large farms it is desirable to have large fields, especially where few animals are kept and large quantities of grain raised.

There is something very satisfactory to the eye in a wide sweep of meadow when spring clothes it in green, or when the long days of July bring activity to the hay field. Nearly all the operations of tillage and harvesting seem to be carried on to greater advantage in the large field.

But it is nevertheless true that on a farm where a mixed husbandry is carried on, there will be constant loss if there are not small lots. And although some delight to gather the statistics of the cost of fences, yet the expense should be as cheerfully borne as the expense for any other necessary purpose.

All shrubs and fruit trees should be protected by fences from the encroachments of animals, and every farm should have its fruit lot. The vegetable garden should be securely fenced. A lot should be ready in spring for the ewes with early lambs. This should be large enough to allow them exercise, yet keep them from roaming. This lot should have a shed. A lot for the calves would add to their thrift, and if it had a southerly exposure and a warm shed for hay and feed troughs it would be more satisfactory. Calves generally do best if kept from other stock till a year old. If geese and ducks are kept, a lot should be provided specially for them. These fowls are very disagreeable if permitted to run with other stock or to have access to the door-yard. Many farmers entirely refuse to keep these water fowls, because of the damage they do to growing crops, and because of their disagreeable noise near the house; yet their products are

becoming more scarce and valuable every year. Mattresses may be conducive to good health and early rising; but for resting, commend me to a well ventilated bed in the farm house where ducks and geese are raised. With a lot securely fenced, and with nest-houses, the profit from geese and ducks will be more satisfactory than under ordinary management. A lot for breeding sows and young shotes will tend to cheapen pork, especially if it have a good clover sod and running water. Colts and young horses should not be allowed to exercise in yards where other stock is kept. A high smooth fence will not tempt them to jump.

There should also be plenty of material prepared for temporary fences to surround a piece of field turnips, cabbages, potatoes or corn, when it is desirable to graze some animal in the rest of the field. If posts and boards are used, sharpen the posts to drive into holes prepared with a bar. Use twelvepenny nails that have been toughened by heating to a red heat and slowly cooled, and they will seldom break, if drawn with a hammer after being driven. Stakes with boards will make strong fence without nails. There are also several kinds of panel fence and hurdles, that are so prepared that they can be put up at little expense.

In the fall of the year when lambs are weaned, bucks taken up, and the flock divided, these lots will be needed again; especially if a choice breed is kept, or if some are put up to fatten.

It is quite startling to see the statistics that show the immense cost of fences. Such statistics prove nothing in regard to their necessity or economy. Statistics could prove that shoes worn instead of boots would make a great saving; but not one man would cut off his boot legs to economize. It will often happen, where fences are removed and a large field made of small ones that serious inconveniences will be experienced. Z. E. J.

For the New England Farmer.

FOOD.

If the subject of food has not claims on the attention of New England farmers I am at a loss to know what has. With this idea, here are some of Dr. Letheby's views, from his admirable lecture On Food, which I find in the *Chemical News*. Though we live in a land of corn, and he does not, yet we may learn of him. Speaking of *Indian Corn*, he says:—

"It is one of the most extensively used grains in the world; entering largely into the food of the inhabitants of America, Italy, Corsica, Spain, the South of France and the Danubian Principalities; and, since the famine, in Ireland, it has there become a common article of food, especially when potatoes are scarce or dear; though its flavor is harsh and peculiar, and nothing but a scarcity of more agreeable food reconciles people to its use."

This last remark hardly accords with the taste of most of us of New England; yet with those not educated to its use, and who probably do not have it in its most desirable condition, but resort to a stale article, under necessity, it is doubtless true.

"The farina is peculiar when examined under the microscope, and will thus serve to identify it. The meal is rich in nitrogenous matter and fat, yet it does not make good bread. It is, therefore, either cooked by baking it into cakes, or by stirring it into boiling water or boiling milk, and thus making it into a sort of hasty pudding or thick porridge. This is the method of using it in Ireland. It is flavored with salt, or butter, or treacle. The favorite mess, called corn-lob, by the Creoles of British Honduras, is prepared with milk in this way. Indian meal mixed with maple sugar and baked into cakes, formed at one time the chief article of diet of the almost extinct Delaware Indians.

"When deprived of its gluten and harsh flavor, by means of a weak solution of caustic soda, and then dried, it forms the expensive food called Oswego or corn flour, which is so largely used for puddings. It is also mixed with wheaten flour and baked into bread, but its harsh taste is scarcely ever completely covered.

"The grain is said to cause disease when eaten for a long time and without other meal, —the symptoms being a scaly eruption upon the hands, great prostration of the vital powers, and death after a year or so, with extreme emaciation. These effects have been frequently observed among the peasants of Italy, who use the meal as their chief food, but I am not aware of any such effects having been seen in Ireland, where it is often the only article of diet."

Have any of the readers of the NEW ENGLAND FARMER seen any such diseases or ill effects from the use of corn meal?

"The nutritive power of Indian meal is very high, and considering its price, it is almost, if not altogether the cheapest food for the poor. Calculated according to the physiological wants of the system, a week's diet for an adult will only cost about 10½ pence, and excepting split peas which are of doubtful digestibility, there is nothing approaching it for economy."

These statements are valuable because they are the latest physiological views of the subject from a chemical stand point, as far as I am aware. The variation of prices in different localities affects the relative cheapness of wheat flour and corn meal to the user. It is undoubtedly true that meal requires more "fixings" to make it palatable to the laboring man than flour,—a fact which should be taken into consideration. O. W. TRUE.

Farmington, Me., Dec. 14, 1868.

TEXAS CATTLE DISEASE.

A convention of American Cattle Commissioners was held at Springfield, Ill., Dec. 1–3. The Convention represented thirteen States and the Province of Ontario, Can. There were thirty-six commissioners present; Dr. E. F. Thayer representing Massachusetts, and Dr. E. M. Snow, Rhode Island,—the only delegates from New England. Hon. Lewis F. Allen, of New York, was chosen president, and Dr. Snow one of the Secretaries.

The opening address was delivered by J. Stanton Gould of New York, who gave the following description of the symptoms of the disease as seen in New York:—

First, drooping of the head; a stupid, staring eye; generally rough, staring coat; usually the urine is almost black; the gait is staggering; partial paralysis of the hind limbs; spine generally arched; frothy drooling from the lips; sometimes blood in the stools; bowels unnatural, sometimes loose, sometimes constipated; occasionally rheum in the eye; the pulse rapid, often 120 beats in a minute; there is a peculiar odor detected over the flanks of the animal. When two or three of these symptoms are discovered, the introduction of a self-regulating thermometer into the rectum will determine the existence of the disease. If it shows over 103, the disease is proven to exist; if over 107 there is no hope for the animal.

The principal internal symptoms are a greenish yellow or brownish appearance of the fat and a brownish appearance of the lean; the liver generally enlarged, and cutting like lard; the spleen always enlarged and ecchymosed; it has the appearance of mottled castile soap; the kidneys vary in appearance, but generally are somewhat darker than natural when cut. The third and fourth stomachs are generally inflamed. In the many folds the digested food is found hard and dry. In the fourth stomach deep ulcerations are found. The rectum is generally inflamed. The blood is lighter than in health, and under the microscope the blood corpuscles are found destroyed, and a very large increase of water is found in the blood. A minute spore, or a cryptogamic plant, of the oidium family is found in the blood. The heart and lungs usually are healthy. The brain is generally softened, and the surface injected with venous blood. Handling the viscera is followed by smarting of the hands.

From a summary of the results of this convention prepared for the *Chicago Tribune* we copy the following:—

"The evidence from all sources, brought before the convention, confirmed the following statements, there being no doubt as to many of them: The Texas cattle are not, probably, affected by the disease in Texas. Cattle taken from the North to the Central and Southern parts of Texas, die of the disease, and a similar disease is common among the horses in Texas. Texas cattle brought north, either by water or rail, or driven on foot may communicate the disease to native cattle, but probably proper treatment while on the way would decrease the danger of such communication. Texas cattle do have the disease, and die from it, in the north, but much more rarely than do native cattle. Old native cattle are much more susceptible to the disease than young ones. Comparatively few suckling calves die from it; in some cases calves drew milk from the cows until the death of the latter, but still did not take the disease. Unless in very rare instances, the disease has not been communicated to native cattle kept in enclosures in which Texas cattle had not been. Eating where Texas cattle have grazed, drinking where they have drank, or at least, passing over the ground where they have been driven, seems necessary to communicate the disease to native cattle, although apparent exceptional cases have been known. There is scarcely a doubt that severe frosts remove danger of communication of the disease, and that after Texas cattle have been wintered in Northern States they will not communicate the disease. In very rare cases, if at all, have native cattle communicated the disease to others. Generally no evil effects are known to have followed the use of the milk or flesh of the diseased cattle. Rabbits have taken the disease from being fed on the diseased flesh. The disease as seen in New York is of a more aggravated character than in the West. The enlargement of the spleen is, perhaps, the only easily detected internal symptom of the disease which is found in all cases. In all cattle affected with this disease a minute fungus, or cryptogamic plant or spores are found in the blood corpuscles, which are disorganized. They are also found to a less extent in the blood of healthy Texas cattle, but are not found in healthy native cattle. Whether they are a cause or effect of the disease is not settled. Ticks are found on all cattle with this disease, and on at least a very large proportion of the healthy Texas cattle. Scientific men, perhaps without exception, discard the theory that the ticks cause or communicate the disease. No certain cure for the disease has been found. Carbolic acid is highly valuable as a disinfectant or a preventive, and in the treatment of the disease, but it should be used with caution, as injury results from the use of strong solutions."

The convention proposed to the Legislatures of several Western States a law to regulate the introduction of Texas cattle, and a committee was appointed to ask Congress to order

a commission to investigate fully the character of the disease, on which the Chicago *Tribune* remarks:—

The recommendations to the State Legislatures suggest regulations that, if generally adopted by the States and fully enforced, will make future outbreaks of the disease very improbable, while allowing the Texas cattle to go forward to all markets during four months of the year. They also would do much to prevent the spread of any contagious disease among domestic animals. They also contain valuable suggestions as to legal enactments to secure reform of the abuses in the transportation of animals for food, a matter of vast importance in a sanitary point of view. These recommendations will undoubtedly have a considerable effect on the legislation on the subject in several States. They will have some effect in allaying excitement in regions where loss has resulted from the disease.

A CONVENIENT POULTRY HOUSE.

Fig. 1.

Eggs now fetch a good price in market, and we can better afford to expend a little time and money to furnish the hens which lay them with warm and comfortable quarters, than we could when eggs were worth only ten to twelve cents per dozen,—in "store-pay" or barter, at that.

The above cut represents a Poultry House planned and built by the Senior Editor of the FARMER, which may possibly afford suggestions of practical value to those who are arranging the winter quarters for their poultry, whether in a building by itself or in the barn, shed or some other building. A house or room, say eight feet wide by twelve long, will accommodate from twenty to thirty fowls, about as many as can profitably be kept together, unless they have a wider range. The front should face the south, and the yard may be on either side, as taste or convenience may suggest; but so long as the ground is bare the fowls would enjoy a range on the south, and be benefited by coming to the ground.

Figure 1, is a perspective view, and beautiful it is. Fig. 2, is the ground plan; *a*, is the doorway; *b*, the grain chests; *c*, the feeding boxes; *d*, the stairway to the loft; and *e*, a small opening for the fowls to pass out and in. The opening at the left of *a*, is the door-way, from the entry into the main poultry room. Directly over the feeding boxes there may be

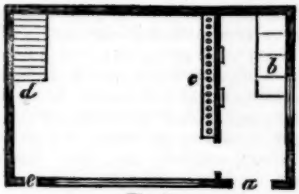


Fig. 2.

placed another row for nests, 3 or 4 feet from the floor, which may be examined through a slide from the entry without entering the main room. These boxes may be darkened and made a little secret, by placing a shelf along in front of them and nailing a board edgewise against it; and as Miss Biddy, like some others of the gentle sex, is a little prudish, at times, it is well enough to indulge her fancies. On a floor under the window in the roof, the fowls will find a warm place in which to congregate in the winter.

COWS IN LONDON CITY.

Thinking that the readers of the FARMER, who understand very well how to manage cows on the farms of New England, might like to know how they are kept in the great city of London, we copy from the *Journal of the Royal Agricultural Society*, the following statement by Mr. J. C. Morton:—

Having got your cows well purchased, the point of next importance is to feed them properly. The invariable food in London cow-sheds is grains (brewers' or distillers' grains, the spent barley or other grain after being well washed or "worked out" in the process of brewing and distilling,) with mangolds and hay in winter and grass in summer. When first the cow is received into the shed, it is important that she be gradually accustomed to her new food. She should therefore receive during the first week little but green food, grass or clover, or vetches in the summer, and

mangolds and hay in winter with bran mashes, into which grains may be gradually introduced, until, as she takes to them, she may at length be treated as the others are. What this management is, I take from the statements of two men, neither of them very large dairymen, but both successful managers. Mr. Sumpton, of Little Warner street, Clerkenwell, who usually milks about thirty cows, describes his day's work as follows:—

The cowmen enter the shed at 5 A. M. and proceed to milk. In the case of the wholesale milk trade, when the milkers who buy the milk do the milking, one good man suffices for thirty cows. The cowman then only helps if necessary, at milking time, and sees that the work is thoroughly done—his main business being to feed and tend the cows. If he has any reason to suspect that a cow is not milked out, it is his duty to his master to "strip" her, for nothing injures a cow more than imperfect milking; and if he succeeds in getting another half pint from her, his master will give him 6d. or 1s. for it, and fine the dealer that amount for his servant's default. When not only milking, but serving the customers at shops and houses has to be done, three men are required for thirty cows. They begin milking at 4 A. M., and finish between 5 and 6. About a bushel and a half of grains is then given between each pair of cows, and they are partly cleaned out, and when the grains are done, a truss of hay (¼ cwt.) is divided amongst 12. In the meantime the men have been serving the milk; after which they breakfast (about 8 A. M.). After breakfast time a bushel of chopped mangolds, weighing 50 or 60 pounds, is given to each two cows, and the cows receive another truss of hay among 12. The cow-shed is then cleaned out, and the cows are bedded and left. At 1 P. M., milking commences, and very much the same feeding as before, is given. At 2.30 grains are given as before, followed by the same quantity of hay, and then (and only then during the 24 hours) the cows are freely watered. They again receive a truss of hay amongst 12, and are left for the night. The grains are either brewers' or distillers' grains; the former are as much inferior to the latter in value as they are in price—the one at present costing 3d and 4d a bushel, and the other 8d and 9d.

In the case of cows in heavy milk—also in the case of those rapidly losing their milk, which must be sent to market as quickly as possible—it is common to give two or three quarts of pea-meal mixed up with the grains morning and evening, each cow thus receiving that quantity daily. And when the milking is coming to an end, for three or four weeks before the cow is sold, she may receive two or three pounds of oil cake in addition. A full bushel of grains, half a bushel of mangolds, one-third of a truss of hay, and five or six pounds of pea meal in the case of the fatting cow, are thus the daily ration in a London cow-house. The grains at 2s. a quarter, the hay at £6 a ton, and the mangolds at 20s. a ton, cost 1s. 3d. a day, and with meal or cake the daily allowance may cost from 1s. 6d. to 1s. 9d. per cow—10s. to 12s. a week.

In summer time the food is grass with grains, and meal if necessary. Most cow keepers, except the very smallest men, either have a small suburban farm, or buy a few acres of vetches, clover or grass, and cart it themselves. When it is bought daily at the cow-house, it costs from 1s. to 13d. a cwt., during the summer, and the cows receive about that quantity daily, given to them as fast as they can eat it, morning and evening, with their grains.

Of course the proper feeding of the cow after she has been well bought is the very essence of the business of the cow keeper. It is a proof of good management when she is so treated that no kind of food which she receives shall pall upon her taste. The maxim is—never "over-do" a cow with any kind of food. Some cows are exceedingly greedy for distillers' grains—they yield a very large quantity of milk upon them; but it is easy to over-do a cow with grains, and she should be always stinted of her favorite food, or she will get sick of it, as I have seen often enough in the case of this very article—distillers' grains.

DOCTORING SICK ANIMALS.

The following sensible advice on this subject is from the Illustrated Annual Register, for 1869, published by Luther Tucker & Son, Albany, N. Y. The article was written, we presume, by J. J. Thomas, the editor of the Register:—

A fine horse, belonging to the writer, once caught a bad cold, and was afflicted with an obstinate and severe cough—that he could sometimes be heard half a mile. The neighbors were liberal with prescriptions; and ashes, blue vitriol, copperas, castor oil, turpentine, glauber's salts, &c., were recommended in large quantities. The owner concluded that all these, if taken, would be quite enough to kill the animal, and it was therefore decided to give him nothing, and take good care of him. In other words, Dr. Physic was dismissed and Dr. Nurse called in. It was early in autumn; and a good clover lot furnished all the food, which, being of this succulent character, served somewhat as an expectorant. Special directions were given never to work the horse enough to cause sweating, and to blanket him carefully after working, or whenever the weather was cold. In short, everything was done to prevent any further catching cold, and to keep him at all times comfortable—giving very moderate labor. In six weeks he was perfectly well. Dr. Nurse proved his skill and efficiency in this case. If the animal had been dosed, worked hard, and treated

carelessly, it is not probable that he would have recovered.

In another instance, a horse by hard usage had a bad attack of sweeney. A "horse-doctor" (so called) offered to cure him for $20, by some cutting and slashing process. The offer was declined. He finally reduced his proposed charge to only $3. Had he offered $30 for the privilege of experimenting on the animal, the offer would have been as promptly refused. A new Dutch collar was procured, and only moderate labor permitted. In a year the sweeney had nearly or entirely disappeared.

When animals are violently and suddenly attacked, it may be best to administer powerful medicines; but they will rarely if ever be thus attacked unless through hard usage. In chronic cases take good care and attend to general comfort, and nature will in time effect a cure. Be very careful to avoid those pretenders known commonly as *horse doctors*.

There is one simple remedy which may be at all times used with safety. This is fresh pulverized charcoal. It can never do any harm, and nothing restores sooner any derangement of the digestive system. Take red burning coals from any wood fire, pulverize them at once in a mortar, and the powder will be ready for use. Mix a teacupful of this powder with a junk bottle of cold water, and pour it down. Horses, cattle, and other animals, which may have been injured by overeating, or by swallowing bad food, may be readily cured by this remedy.

There is another very safe remedy for all diseases which affect the skin, or begin on the outside, such as scratches in horses, and foul foot in cattle. This remedy is *cleanliness*. Use cold water, or tepid water, according to circumstances, adding soap if necessary. It will have an excellent effect.

Preventives are better than cures; therefore keep all animals in dry clean pastures, or in dry, well littered, well ventilated stables. Never over-work or over-feed. Attend to general comfort in all particulars—protect from cold—feed regularly, and never make sudden changes of food, and you will very rarely have a sick animal.

REMEDY FOR INTESTINAL WORMS.

The Boston *Journal of Chemistry* states on the authority of Mr. E. C. Haserick, of Lake Village, N. H.—a chemist of some note and a gentleman who has spent considerable time in investigating the habits of intestinal worms in animals—that worms in horses may be cured by simply keeping the external orifice thoroughly anointed with lard, and that this remedy will completely cure every case of worms in the intestines in one week. From his observation he is satisfied that worms in the intestinal canal cannot propagate their species without access to light and air, and he believes the prevalent idea that the parasitic ovum is deposited in the mucous follicles of the stomach and intestines, and is there developed and matured, is entirely incorrect. The intestinal cavities are not the natural breeding places for any variety or species, and the instinct of the worm leads it to crawl to the exterior orifice, and there outside the folds of the sphincter muscle the eggs are deposited and hatched. The process is a rapid one, the egg requiring but five or six hours after it is deposited to germinate and produce a new animal which at once enters the canal as its natural feeding ground and home. As the life of the worm does not exceed six days, Mr. Haserick claims that if the eggs deposited at the anus can be destroyed so as to prevent a repetition of life, the animal in one week will be entirely free of the trouble, the dead worms passing away in the fæces.

In pursuing his investigations regarding the habits of these worms, Mr. Haserick tried numerous agencies for an external application before becoming sure of the virtue of lard for the purpose. He says he has observed the worms approach the orifice, move about, and return to die, being unable to lay their eggs upon the oily surface. No internal medicine of any kind is necessary. Mr. Haserick also asserts that children can be relieved of worms in the same way by the application of lard to the anus. The severe itching in that locality is caused by the irritation of the parasites crawling to the surface to deposit the egg, and if this can be prevented so that no new families may hatch and colonize, the old ones soon die out and relief is given.

We regard this discovery as one of much importance, and although it is in complete variance with all our heretofore received authorities as to the habits and method of propagation of these worms, yet we are not the less disposed to believe it on this account, especially as the statements of Mr. Haserick are attested by many responsible parties, and his remedy has been practically tested throughout an extended neighborhood. The parasites alluded are probably those known as *Stronguli* and *Ascarides*, the former about an inch, and the latter an inch and a half in length, although the latter make the most ravages and cause the greatest irritation in the parts alluded to. The former produce extraordinary ravages in the larger intestines, and sometimes eat through important structures, though they do not produce that violent itching posteriorly, that the *Ascarides* do. When this symtom with horses is noticed, we would advise an application of Mr. Haserick's remedy. Should our readers try it, we hope they will acquaint us with the result.—*Maine Farmer*.

—At the adjourned meeting of the Trustees of the Worcester North Agricultural Society, held in Fitchburg on the 16th, Samuel Osgood, of Sterling, was elected President for the ensuing year.

OBSERVE FACTS.

It is well to observe facts as they occur in our agricultural experience from year to year, so that when a sufficient number of them have been recorded, and duly authenticated, we may deduce from them some general principle underlying them, which may be of value as a guide in practice hereafter. The operation of some one or more of the laws of climate or of vegetable growth may be observed in one year more strikingly than in others; the peculiarity of the season may show the force of some law in a more marked degree and impress it more deeply upon the attention of cultivators. If any such facts have been noticed during the past season let them be recorded for use.

It has long been known that certain plants which we cultivate make their principal growth, especially their root growth, in the cooler parts of the season, as in the spring and autumn, rather than in the hot summer months. The same plants thrive best in a temperate climate, and in cool seasons rather than in hot ones.

Wheat and potatoes are examples of this kind. Wheat *planted*, (we use the term *planted* rather than sowed, for we believe wheat needs to be planted as much as corn,) in the early fall makes a good stand and a large growth of roots and then starts early in the spring and completes its growth while the weather and the ground are comparatively cool. When the weather becomes hot, and the rays of a tropical sun fall upon the ground, the roots and stem cease to grow, and the sap already formed is converted into grain. If the hot weather comes on too soon, before the sap is sufficiently accumulated to fill out the grains; or, if the sap becomes so thickened by the evaporation of its watery portion, that it can no longer flow to the heads, the grains become shrivelled, and the crop is light. This has been demonstrated in many parts of the Western wheat-growing regions during the present season. There is a good deal of complaint that the berry is light and shriveled.

So if spring wheat is sown late, and has not time to complete its growth before the heated term, the crop will be light.

Potatoes are the plant of a temperate climate, and will not thrive in the tropics. They do best in our cooler years, and they will not make much root growth in midsummer. They must be either early or late; that is, they must make their growth in the cool weather of spring, or in the early autumn. Sometimes owing to the cold and wet, they cannot be planted sufficiently early in the spring to make their growth before the hot weather comes on. Then the crop will be small. If they are planted so late that the tubers begin to form about the coming on of the hot weather, the tubers cease to grow for some time at least, and the result will probably be a crop of numerous small potatoes. If they are planted still later, so that the tubers have not formed when the heated term arrives, if there is sufficient moisture to enable them to maintain the vitality of the stem and leaf till this term is over, they will go on and form tubers in August and September, and there will be a good crop. All these facts have been illustrated during the past season, and are worth remembering.

NEW PUBLICATIONS.

HOW TO MAKE THE FARM PAY; or, the Farmer's Book of Practical Information on Agriculture, Stock Raising, Fruit Culture, Special Crops, Domestic Economy and Family Medicine. By Charles W. Dickerman, Member of the Pennsylvania Agricultural Society, American Pomological Society, and the Pennsylvania Horticultural Society. Assisted by Charles L. Flint, Secretary Massachusetts State Board of Agriculture, and other practical Agricultural Writers. Illustrated by one hundred and forty Engravings. Zeigler, McCurdy & Co., Philadelphia, Pa., Cincinnati, Ohio, Chicago, Ill., and St. Louis, Mo.

This, we believe, is the title page in full of a large octavo volume of 750 pages, which has just been laid upon our table, and think it will give the reader a good idea of the character of the work. Though the subjects are not arranged in alphabetical order it obviously aims to be an Encyclopædia of Agriculture, Domestic Economy and Family Medicine.

In addition to the difficulty of treating so great a variety of subjects in a manner satisfactory to those who desire practical information upon any particular one, the author has assumed the still more difficult task of shaping his directions to meet the "requirements of the East, the West, and the South." And here we must acknowledge that the mere general examination which we have given the work has not been sufficiently minute to warrant the expression of an opinion as to the degree of success which the author has achieved.

The volume undoubtedly contains a large amount of valuable information. The type used is large, clear and open, but we are sorry to add that most of the cuts will be familiar to those who have seen the catalogues which our agricultural warehouses and stock breeders have issued during the past ten years, and that it may be suspected by some

of the readers of this stately volume that even here they still look like advertisements. Such illustrations may answer the purpose of agricultural papers, but they seem hardly up to the standard of a book which professedly avoids the "crudities" of these periodical issues.

The remark is made in the excellent introductory chapter of this work, that "the tendency of the age is to change. We may search every page, from Cato to Palladius, a period of nearly five hundred years, but there is no mention of any improvement in system, or advance of any kind, and it is doubtful if the whole of that long period added as much to the real productive power of the farmer as has been gained within the last ten years of our own history." Hence the ponderous tomes which were published only a few years ago, such as our "Farmers' and Planters' Encyclopædias," our "Farmers' Guides," our "Books of the Farm," &c., require the frequent use of the dust brush, if they are still permitted a standing place on our bookshelves. The demand is for "live publications," those that keep up with the progress of the times. Agricultural books grow old so fast nowa-days, that we fear the publishers of "How to make the Farm Pay," have been unfortunate in the form of issue they have adopted for the result of the great amount of labor which has been expended on this volume.

THE DISEASES OF SHEEP, Explained and Described, with the Proper Remedies to Prevent and Cure the Same. With an Essay on Cattle Epidemics. By Henry Clok, V. S., Philadelphia, graduate of Royal College, Berlin, and late Veterinary Surgeon-in-Cheif of the U. S. A. Published by Claxton, Remsen & Haffelfinger, Philadelphia; Nichols & Hall, Boston. Pages, 146. Price, $125.

Here is a book by the "late Veterinary Surgeon-in-Chief of the United States Army." Though we never heard of that officer before, we are bound to honor those in authority. "The chief and *only* object of this work," the author informs us, "consists in a description of the internal and external diseases of sheep, as well as of their treatment and prevention." But he soon afterwards adds:—"Another, and not the least important, object which I have in view is that the reader may be induced to form a higher opinion of the veterinary science and of its disciples than has hitherto prevailed." If this work shall inspire the public with a like confidence in its merits which its author evidently possesses, it must become a most popular book. He does not hesitate to say, "I have proved that I am fully acquainted with the symptoms, the origin and the course of the diseases," on the same page on which he speaks of the pleuro-pneumonia and rinderpest as identical.

Overlooking a little egotism, which may be pardoned in the graduate of a foreign college, and in the Surgeon-in-Chief of the U. S. A., and remembering that, as is claimed by the author, "everything related by me in the present work is the result of my own experience and observation," we may say, from a somewhat hasty examination of the work, that we think it contains much that the breeders of cattle and sheep will read with interest and profit.

"POWER OF A GROWING TREE."

A friend recently requested us to publish a little article, which has been "going the rounds" for several years past, about a filbert tree that grew up through the hole in a millstone, until it not only filled the hole, which was eleven inches in diameter, but lifted the whole stone, which was five and a half feet across and seven inches thick, from the ground and wore it like a crinoline about its trunk. As this did not accord with our observation of the growth of trees we could not believe the story, although it was admirably told by a Mr. Waterton, and gave this as a reason for declining to publish it. Its appearance in the *Prairie Farmer*, however, was the occasion of the statement by a correspondent of the following reasons why the story cannot be true:—

1. The filbert is a shrub, much like our hazel bush, only about six to eight feet high, and probably never exceeding three inches in diameter.

2. No tree ever raises an object upon the side of its trunk, because the tree only grows in length where the branches are small and young. For instance, drive a spike into the trunk of a young tree, four feet from the ground, and it will never get any higher.

SHORT-HORNS FOR NEW ENGLAND.

We learn by the *Country Gentleman* that Mr. N. B. Safford, White River Junction, Vt., in connection with Messrs. D. Russ of the same State, and Samuel Crafts of New Hampshire, lately purchased in Kentucky upwards of a dozen head of Short-horn cattle, spoken of as a very fine lot, and including the following:—

From William Warfield, Lexington, Ky., *Jubilee Oxford*, red cow, by Royal Oxford, (18774), dam Jubilee 3d. *Alice Townley*, roan cow, by Dick Taylor 5508, out of *Amelia Townley*. *Mena*, red cow, by Muscatoon 7059, Mary Chilton. *Belle*, red and white cow, by Constitution (recorded in next vol. A. H. B.) out of Adeline. *Leila Challenger*, red and white cow, by Gen. G. B. McClellan 566, dam Princess Challenger.

From James Hall, Bourbon Co., Ky., *Kentucky Duke*, red bull, by Princeton 4285, out of Cherry, by Pearse 2012. *Fanny Battaile*, red and white cow, by Willey 3d, dam Lena. *Bertha*, red and white cow, by Burnside 4918, dam Jenny. *Emily 2d*, red and white cow, by New Year's Gift 7067, dam Emily. *Geraldine 10th*, red and white cow, by Princeton (4285) dam Geraldine 2d. *Alice* 2d, red and white cow, by Dick Taylor 5508, dam

Alice. *Eda Dil*, red and white cow, by Princeton, 4285, dam Fanny Battaile.

From B. B. Marsh, Bourbon County, Ky., *Hetta*, deep red cow, by Tom Jones, dam Lady Bell. *Red Rose*, red cow, by Orphan Boy 3d, 6015, dam Rose Clark.

THE SEASON AND CROPS.

In connection with some remarks that we made a few weeks since on the peculiarity of the seasons with regard to the crops, the following statement by a correspondent of the *Germantown Telegraph* in relation to the different growths of the Early Goodrich potato are interesting to us, and may be so to many of our readers:—

In 1866, with me, they proved very productive, but cooked wet up to the time of gathering, though shortly after they began to improve and become very fine and dry, and of excellent flavor. *Now mark the difference in* 1867. They were excellent from the very first digging and continued so all through the summer and winter, the yield being a bushel to every 33 feet, sets planted a foot apart in the rows, rows three feet apart. In 1868, this variety proved deficient in quantity and watery in quality, yielding about one-eighth less than in 1867. The early planting, owing no doubt to a very hot spell about the time they were two-thirds grown, caused them to take a second growth, and they grew very knobby; while those planted later grew quite smooth. This variation in shape, quality and productiveness I ascribe to the past unfavorable season. I now find, however, they are improving in quality, and I trust will soon come up to their old standard in quality.

Sales of Improved Stock.—We learn from the *Country Gentleman* that Mr. William Birnie, Springfield, Mass., has recently sold the following Ayrshires: The five-year-old cow *Topsy*, to Chas. T. Hubbard, Boston, for $400; the two-year-old heifer *Mysie*, to S. M. & D. Wells, Wethersfield, Ct., for $300; the six-year-old cow *Jessie*, to Geo. H. Taft, Framingham, Mass., for $250; the bull *Johnnie Groat*, to the Messrs. Fairbanks, St. Johnsbury, Vt., and the bull *Dugald Grant*, to S. L. Warner, Lanesville, Ct.

Mr. Sherman Hartwell, Hedge Lawn, Washington, Ct., has sold the following Cotswolds: A ram lamb and ewe lamb to J. M. Carnochan, New York; a two-year-old ram and two ewes to J. M. Walker, Worcester, Mass.; ten ewes with lamb to Mr. Bull, Plymouth, Ct.; one ram and ewe to Chas. Stoddard, Naugatuck, Ct.; a ram lamb to A. C. Smith, New York, and another to Isaac Hart, Bristol, Ct.

Governor Claflin of Massachusetts has presented to Frank D. Curtis, President of the Saratoga County Agricultural Society, a Jersey bull, fawn and white, with black tongue and white tail, from his celebrated cow Flora, sired by Mr. Payson's best bull.

For the New England Farmer.

HARVESTING HAY AND GRAIN IN ENGLAND.

Fancying that a little more minute description of the mode of making hay and stacking it in England than that given in the Farmer of Oct. 3d, (Monthly p. 515) may be interesting to some of its readers, I beg to give it, with a few additional remarks on harvesting and stacking grain.

Having been raised on the banks of the "Severn," and within five minutes walk of its stream, I am obliged to differ in opinion from the correspondent of the *Country Gentleman*, from whose article you quoted. He is rather too hasty in his description of the process of hay making and wind cocks, and slightly mistaken in some of his other statements. He speaks of farmers of 300 acres of meadow land having only "one team." If by this expression he means one pair of horses, as it is generally understood in this Western country, the statement is entirely erroneous.

A farmer of 300 acres of meadow land on the banks of the Severn, or on the banks of any other stream in England, could not possibly, under any circumstances whatever, get possession of a farm of 200 or 300 acres of meadow land if he had only one team, unless it was in the County of Cheshire, where the land is almost exclusively devoted to grass. The principal river in that county is the "Dee."

Farms in England with 300 acres of meadow land usually have a quantity of arable land also. To be able to rent such a farm the farmer would be obliged to have not less than from five to nine horses of heavy draught, and weighing from twenty-two to thirty-five cwt. per pair, seventeen or eighteen hands high, and wearing shoes of from 5½ to 7 lbs. weight each.

The grass after being cut is run through with a Horse Tedder. It is then raked into small rows the full length of the field. It is next thrown into small wind cocks, which are turned over once or twice. It is then shook open and afterwards raked into large rows, and frequently by women, men following and throwing it into large wagon cocks, in straight lines; but on *no account*, nor under any circumstances, would a man get upon the cock to make it, nor does it stand in the field for a few weeks in the cock. It is not reasonable to believe that any farmer would leave his hay unstacked for weeks after it is sufficiently made to stack. Its goodness and nutriment would naturally sweat and dry out. It must be remembered that it takes a longer time to make hay in England than it does here. The

weather there is not so hot as here. The last summer was an extraordinary one.

In England they put under the hay stack a quantity of briars or hedge bushing, covering all the ground on which the stack is build, so that not a particle of hay is lost. When making the stack, a four-bushel wheat-sack filled with hay and with a rope attached to it, is placed in the centre at the bottom, and as the rick progresses the bag is pulled up little by little, forming a kind of chimney in the middle, which admits a current of air to pass up through the stack under the briars. Such ricks or stacks never fire of themselves, even if the hay is a little damp when stacked. After a few days the rick is thatched with about six inches of long straw thrashed with a flail. To put this on neatly requires much skill, and a good thatcher always can command good wages.

The *Country Gentleman's* correspondent really must have forgotten himself when he talks of two men and a boy getting home and stacking the "Severn bottom" hay from 300 acres. The statement is preposterous. One man on the wagon and one man to pitch up! Who, then, drives, and who uses the ellrake: and where is the stacker? It is true that all farmers' teams are driven by *word of mouth*, but it requires the wagoner to drive, whose sole business it is to attend to the team, which generally go one before the other with chain traces. Reins are not used. A farmer's narrow wheel wagon with whipples will carry from three to four tons of old hay. How long a time would it take two men and a boy to haul home the hay from 300 acres? And what farmer with a grain of common sense would risk so much hay to the casual chances of the English climate, where lots of men at half a crown or 3s a day,—about 75 cents,—can be got easily?

Harvesting Grain.

In England, until within a few years past, wheat was always cut with a sickle or the Welsh broad-hook. Barley and oats are generally cut with a scythe—like grass,—and turned over with a rake and not bound as wheat is. Both are stacked as hay, but it is done on "stools." These stools were formerly made of stone, in the form of a sugar-loaf, but now they are made of iron. They are portable, and in shape resemble a candlestick turned bottom upwards, having a round smooth iron plate on the top. Wheat stacks are generally made round. There is one stool or pillar in the middle and several on the outside, with iron bars from each outside pillar to the centre one, on which the grain is stacked. The pillars are about two feet and six inches high, so that no rat or mouse can get up into the rick. The stack is narrow at the bottom and continues to widen as it gets up to the eaves. The roof is steep and so well thatched that some of the "*holders-back*" can keep their grain dry and in good order for several years, waiting for higher prices.

After the wheat stack is settled it is thatched and trimmed smooth all round with a large pair of shears, and is so smooth and solid that a mouse or rat cannot bore its way in without cutting it, and a bird can hang on the outside little better than on an upright wall.

Barley and oats are stacked on stools, but not being bound are not trimmed so nicely as wheat. The advantages of stools are, that cats and boys can have free access under the stack, and they prevent rats and mice from ascending.

Whole fields of sweet turnips are thatched in England. The roots are topped, tailed, and stacked in heaps, like the iron cannon balls at the Tower of London and other arsenals, and these are thatched with hand-thrashed wheat straw. Thousand of acres of swedes, turnips, mangolds, and grey peas and beans, are grown most extensively, and are employed in stall feeding. Roots are mingled with chopped hay, oil-cake, beans, and grains from the brewery,—the last not largely used. A great deal of farinaceous food is now used there, but it does not make any better beef than the old fashioned food.

I beg to enclose you an ear of winter wheat grown on the banks of the river Severn, received in a letter from the Old Country, which you can compare with that grown in your own section. Pardon me for taking up so much of your time and room. JOHN WHATMORE.

Bridgenorth Farm,
Dunleith, Ill., Dec. 4, 1868.

REMARKS.—We remember of hearing, when a boy, some old farmers talking about the growth of wheat in England, and the remark of one man that the heads were often so close together in the field that mice would run along on them like squirrels on the branches of trees. But we believe we have never before seen a *bona fide* head of English wheat. It is beardless, four inches and a quarter in length, and on comparing it with the illustrations given in Mr. Todd's American Wheat Culturist find it resembles the cut of the Deal Wheat, but is a trifle longer, being of the exact length of the drawing of Hallet's Pedigree. The straw is very clean and bright, the ear well filled and altogether it is a very handsome specimen of wheat; for which, as well as for his communication, Mr. Whatmore will accept our thanks.

—Worsted, it is said, was first spun at a village of that name near Norwich, England; cambrics came from Cambray; damasks from Damascus; dimity from Damietta; cordovan from Cordova; Calico from Calicut; and muslin from Mosul.

AQUILEGIA GLANDULOSA, OR COLUMBINE.

Our native Columbine, or Honeysuckle, as it is often called, is well known and generally admired. The above cut represents a newly introduced species from Siberia. "This plant," says Mr. Breck, "is more dwarfish in its habits than the common Columbine, the leaves are more finely divided; it is about one foot high, producing its beautiful flowers in June. The flowers are large and rich sky-blue; the inside and margin of the corolla pure white. It is one of the most desirable of the genus, propagated from seeds, or by dividing the roots soon

after flowering and not in the spring. The Siberian plants are protected by the deep snows of that climate, and our open winters are fatal to many plants from that region, and I once lost a bed of this elegant flower from too much exposure. It should be kept in a frame through the winter, or otherwise protected, if not covered by snow."

For the New England Farmer.

FISH AS A MANURE.

About thirty years since a few individuals purchased a seine for the purpose of catching menhaden which were at that time very numerous in the vicinity of Nantasket Beach in the town of Hull. For a few years large quantities were caught and sold to the farmers in this vicinity; the price charged, when taken from the beach, being one dollar per thousand fish, the weight of which was a trifle less than one pound each.

My father purchased considerable quantities, and tried a variety of experiments. In some cases the fish were spread on the land and ploughed in immediately; the next spring the land was harrowed and planted with Indian corn. One piece was sown with winter rye soon after the fish were ploughed in. Both crops satisfied my father that fish was an excellent fertilizer for his land.

A compost was made of sand, muck and fish, using about 1000 fish to a cord of sand and muck. This made a very valuable fertilizer, as a top-dressing for grass, or for any hoed crop. There are but few fertilizers that I have ever seen that force almost every kind of vegetation to such a degree as a compost made of fish. But I regret to say that owing to this very fact farmers in this vicinity were very much prejudiced against its use, believing that it forced all the fertility out of the soil, and, as they termed it, "killed the land." This prejudice was so deep that no amount of arguments or facts could remove it.

To give the fish a fair test, I put some on a small piece of poor sandy land and for seven years permitted the land to lay without manure or cultivation, but at the end of seven years it could readily be seen where the fish were spread. Yet I have my doubts if with this evidence I changed the opinion of a single individual who had previously made up his mind on the subject. It is very much to be regretted that farmers, like those who follow other occupations, form too hasty opinions, and when formed, are unwilling to change them, even though carefully tried experiments prove them to be erroneons.

There is no doubt that the flesh of the fish is soon absorbed by the surrounding vegetation; but the bones make one of the most lasting fertilizers within the reach of the farmer. I have seen stalks of rye more than twice the usual size grow where only one-half a gill of bone was put in the hills of corn the year previous.

The value of fish as a manure was well understood by the Pilgrims. The report of Isaac D. Raisiers, who visited Plymouth in 1627, contains the following statement:—"At the south side of the town there flows down a small river of fresh water, very rapid, but shallow, which takes its rise from several lakes in the land above, and there empties into the sea, where in April and the beginning of May there come so many herring from the sea which want to ascend that river, that it is quite surprising. This river the English have shut in with planks, and in the middle with a little door, which slides up and down, and at the sides with trellis work, through which the water has its course, but which they can also close with slides. At the mouth they have constructed it with planks like an eel pot, with wings, where in the middle is also a sliding door, and with trellis work at the sides, so that between the two (dams) there is a square pool into which the fish aforesaid come swimming in such shoals, in order to get up above, where they deposit their spawn, that at one tide there are 10,000 to 12,000 fish in it, which they shut off in the rear at the ebb, and close up the trellises above, so that no more water comes in. Then the water runs out through the lower trellises and they draw out the fish with baskets each according to the land he cultivates, and carry them to it, depositing in each hill three or four fishes, and in these they plant their maize, which grows as luxuriantly therein as though it were the best manure in the world; and if they do not lay this fish therein, the maize will not grow; so that such is the nature of the soil." E. HERSEY.

Hingham, Mass., Dec. 22, 1868.

FARMER OR MERCHANT.

We copy the following paragraphs from an article in the *Germantown Telegraph*, written by J. Wilkinson, Esq., of Baltimore, Md., who addressed the Board of Agriculture at its late meeting at Amherst, and whose personal acquaintance we had the pleasure of making on that occasion. Mr. Wilkinson's business as Landscape Gardener and Rural Architect, has afforded him rare opportunities for a personal observation of the advantages of city and country life. He says:—

Some seventeen years since the writer took from a situation as porter and salesman in a village grocery, a young man of promise, of the age of nineteen years, who had sagacity sufficient to be able to compare the chances of success in merchandizing and in agriculture, and see that the latter presented much the greater promise. He commenced as a farm

laborer, at the common wages of the farm-hand, and made his employer's interest his interest, spent his evenings in reading agricultural journals and other reading devoted to the art to which he had determined to devote his life. He remained three years, and had his salary annually increased, which he well earned, when he went away to the State of Georgia, to take charge of a larger plantation, in which situation he remained but a few years, when he purchased and stocked a fine farm of several hundred acres, on which he still lives, and lives as only the farmer out of debt can. The firm he left in the grocery business have since failed, and one of them has failed twice. What a contrast!

How many young men have the same opportunity to-day, and how happy would it be for them if they would only embrace it.

The mistaken, delusive idea that it is more respectable and the chances of success are greater to the young man to take the position of porter, or lacky in a mercantile house in the city, with hope of becoming a salesman, or book-keeper, and finally a merchant, instead of taking a situation as a farm-hand where, with the same industry and application that would secure only a living in the former, he might in a few years become competent to take charge of a large and productive farm, which he could take on shares, without capital, and with a great degree of certainty he could in ten or fifteen years save enough to stock a fair farm and make a payment that would number him among that most enviable class of men, known as lords of the soil.

If the youth reared in the country could only see behind the tinsel curtain that conceals so much genteel misery in the city, he would shun it as he would a viper, and would return to the land of his nativity with the firm resolution to make the country his place of abode and field of labor for life.

If the writer with his experience with life in the "country which God made," and the city, the work of man, had a dozen sons to locate in business, he would certainly settle twelve of them on a farm, and the other one too, if it were a baker's dozen. Not one of them should come to the city by his consent, to take the one in one hundred chances of success there offered.

SHEEP ON THE FARM.

In the *Farmer* of Dec. 5th, I noticed an article entitled "Sheep Beneficial to a Farm." There are those who would take issue with you on this subject, and stoutly maintain that the keeping of sheep tends to impoverish a farm. I know a good many farmers who affirm that their own and their neighbors' farms in this vicinity have been rendered less productive by reason of the change from keeping cows to keeping sheep.

Several years ago, I changed the stock on my farm, from cows to young cattle, and then I changed from stock growing to sheep. I was prompted to this, from the failure of most kinds of grain crops upon the farm. My land had become so infested with wire worms that corn, oats and potatoes were almost a total failure upon all the fields upon the farm, and timothy grass would not do well more than a year or two after stocking down a new piece. The worms would bore into the bulb of the grass, and it was killed at once.

I began to keep sheep, and when a piece of meadow began to fail, I had the sheep put upon it for two or three years, in numbers as great as could be well supported for a given time. When fed down close, they were turned off for a time, and when the grass had sprung up fresh, they were returned. On the fields thus treated for two or three years, I now succeed in raising corn, potatoes, oats, wheat, and no interference whatever from wire worms. On a field of two acres thus treated for two years, and last year put to corn and potatoes, I do not think that a single stalk of corn was injured by any kind of worm, although told by neighbors that I would loose my work in putting in crops on that field. No better corn or potatoes need be raised than were grown upon this field. Another field treated in the same way and put to corn the present season, has given results about as satisfactory.

My theory for this is, that the cutting and stamping of the sod by the feet of the sheep destroys the worms, and the fly that deposits the eggs, and the eggs themselves, to a very large extent, thus ridding the land of this destructive pest. Am I right in this?

When I was a small boy, my grandfather kept a good many sheep, and he raised a good many turnips of the flat variety. His process was this: a few days before the time for sowing his turnips, he would plow over his field, drag and roll the same till thoroughly pulverized and smooth, then he would yard his sheep upon the field for several nights. If his land was not over rich, he would have his sheep upon the field every night, when dry, for two or three weeks before sowing. When ready to sow, he would scatter on the seed, first going over the ground with his harrow, then he would continue the sheep on the field until the turnips began to come up. I never knew him to fail of a crop. His theory was that keeping the sheep on his turnip field so long before putting in a crop, rid the land of the turnip fly, so destructive to the crop when young.

I am strong in the faith that sheep are a good thing on a farm, even if wool does not sell at more than forty to fifty cents per pound, and shall continue them on my farm, as long as I am of my present faith.—*Ohio Farmer.*

—Mr. Samuel Thorne, Thorndale, Duchess Co., N. Y., has sold his entire flock of South Down sheep to Adin Thayer, Jr., Hoosick Falls, Rensselaer Co.

EXTRACTS AND REPLIES.

PLUMER'S ADJUSTABLE HOE.

The peddler's recommendation of his suspenders, that they were long enough for any man, and short enough for any boy, was recalled to our mind as we received, in the early part of last summer, an implement of which the annexed cut is a representation.

At first we thought it was one of those things that are "more nice than wise;" but as our motto is to "try all things and hold fast to that which is good," we took it into the garden with us and went to work. After using it awhile we moved the blade into all the positions it is intended to assume, and found that we could set it exactly to suit our height. We set it for levelling the soil, for cutting up weeds, &c., and soon became satisfied that a hoe needs a particular "pitch" for each of these purposes.

It therefore seems to us that the claims of the inventor—who is also well known for his important improvements in lasts for boots and shoes,—as stated in his printed circular, of the advantages of an adjustable hoe over the common one, are well founded. In our opinion that this new arrangement in a small but most important agricultural implement is a step in advance, we find that others coincide. Dr. Geo. B. Loring, President of the New England Agricultural Society, says: "The idea of making the hoe adjustable to different statures, and for different purposes, seems theoretically correct, and I have no doubt it is practically so." Our correspondent, William Bacon, of Richmond, having tried the Adjustable Hoe the past season for all the purposes to which a hoe is usually applied, calls it a "perfect instrument." He says, "by adjusting it to the height of the person using it, he may hoe his crops through all the long June day *without back-ache—without fatigue*. There is no need of a Grecian bend in hoeing now, but the person employed may stand as *straight* as an *Indian* and do a good day's work. Taking all things into consideration, they are cheaper at $1.25, than the common hoe at 50 cents."

Others who have used it, speak of its merits. Mr. Fred Phinney of Windham, Me., after using the adjustable hoe a *good deal* and *hard*, the past season, says: "I find it perfectly durable and strong. By adjusting the blade to the different uses I can do one-quarter more than with the common hoe, enough to pay the cost of it in three days. This is, I am aware, a strong statement, but it is correct. Its superiority is the more apparent when one attempts to use the common hoe, after using the patent."

As an instrument to cut up corn, Mr. W. L. Larrabee, of South Windham, Me., says that "with the Adjustable Hoe, when set right, I can cut up corn much easier, without stooping, and at least one-third faster, than with any corn-cutter I ever used, and would purchase one for that purpose alone. For other purposes the hoe has proved firm and durable, and all that is claimed for it."

COARSE AND FINE WOOL SHEEP.

I notice a communication in the FARMER of Nov. 28, from L. D. Corliss, of Orford, N. H., in which he says that his experience with fine wool sheep has been different from mine; and that he has found the Merinos very quiet and orderly,—more so than the coarse wools.

I have recently seen most of the best flocks of coarse wool sheep in Franklin county and have conversed with their owners. I might speak of many breeders, but will only mention T. W. Gordon, Farmington Falls, and Elijah Wadsworth, Livermore Falls, both of whom have coarse wool flocks. The sheep of both these farmers are perfectly domesticated, run in pastures with *poor* fences, and are always at home, and are quiet in their habits. In fact, I may say that I have not seen a coarse wool breeder in this county, who is not perfectly satisfied with his sheep in this respect, nor have I ever heard any of "the neighbors" making any complaint of the encroachments of these sheep, although many of them still favor the Merinos and are prejudiced against the coarse wools, as I fear friend Corliss is. Many of these flocks are pastured so far from home that their owners see them but seldom after they are turned away in June. Yet no trouble is anticipated and seldom any occurs in finding them where they were put. In my travels through the county I have almost invariably found better fences enclosing the pastures of the Merinos than there are around those in which the coarse wools run. I also find that there is considerable inquiry and discussion on this subject among farmers in this section, and that there is a rapidly growing preference for the coarse wools. ZEN.

Franklin County, Me., Dec., 1868.

FAILURE OF SCIONS IN MAINE.

In reply to my inquiry through the FARMER for the cause of the failure of scions in Maine this season, "J. W. G." says the trouble was probably in the scions or in setting them. I think it was not in setting them, as I have set more or less every season for twenty years past, with good success till the past spring. My scions were properly taken care of after they were cut, and were set with usual care and in thrifty young trees, yet one half of them died, and those that did live had a sickly look. Other experienced grafters in this vicinity had no better success. A gentleman in Kennebec county, who has had thirty years' experience in the business, setting some years as many as eighty to one hundred thousand scions, estimates the loss in that county at sixty per cent. He thinks the scions were winter killed before they were cut, and recommends that they be cut before severe cold weather and packed in sawdust.

East Jay, Me., Dec. 7, 1868. JACK.

SORE TEATS IN COWS.

When cows calve in cold weather their teats are quite apt to be sore, caused generally, I think, by their being wet with milk. When the calf sucks, the teats are sure to be wet, and some persons when they commence milking always wet the teats with milk the first thing. As far as my experience goes this always makes them sore in cold weather. The best preventive is to wash the teats thoroughly with cold water as soon as the milking is performed. The best remedy that I know is a mixture of tar and lard melted and

stirred together in such proportions as not to be very sticky, and applied once or twice a day.

Cabot, Vt., Dec. 7, 1868. C. M. FISHER.

CHURNING MILK.

Can you or any of your numerous correspondents tell me anything about the churning of milk for the purpose of making butter? Can it be made practicable and profitable? If so, it will remove one serious objection to keeping dairies—that of the great amount of labor required. If the milk can be churned by horse or other power, it would save a great deal of hard work.

Cornwall, Vt., Dec. 21, 1868. N. B. DOUGLAS.

REMARKS.—The idea of churning the whole milk in the manufacture of butter is not a new one. We believe that it has long been practiced in some of the dairies in Holland. Over thirty years ago we saw the apparatus by which the milk was churned by a farmer in Michigan who sold butter to regular customers in Detroit, but we did not learn the particulars of the process. But we remember that some of the neighboring dairy women spoke of it as saving much hard work. In an agricultural address by J. Stanton Gould, President of the New York State Agricultural Society, we find a statement that may be interesting to our correspondent, although we feel obliged to say that we regard the writer as taking very strong ground in favor of churning milk. The fact that so few dairymen adopt this process is sufficient in our minds to qualify any very sanguine anticipations of the superior advantages of that process.

Mr. Gould says that James Toller, of Oswegatchie, N. Y., the township in which the village of Ogdensburg is situated, strains his milk into churns, and when sour, but before it is loppered, churns the entire mass. On the 10th of September he strained 208 quarts of milk into pans, and when the cream had all risen it was skimmed off and churned. The amount of butter obtained was 17½ pounds. On the ensuing day he strained 208 quarts of milk into churns, which, as soon as it became sour, he churned and obtained 19¼ pounds of butter. This is a fair sample of a great number of experiments on record, which are intended to test this question. Mr. Toller's experiment shows that 10 per cent. more butter was obtained by churning the entire milk than when the cream only was churned. Experiments vary with respect to the percentage more or less, but every carefully performed experiment that I have seen myself, or that has been recorded, demonstrates that from eight to twelve per cent. more butter is obtained by churning the entire milk, and it is equally certain that as a whole its quality is better, its flavor more delicate, and it will keep longer without change. The labor of churning so large a mass is indeed greater, but when this operation is performed by water power, or by animals, this is of no consequence; on the other hand it supercedes the labor of skimming the milk and washing the pans, which make no inconsiderable items in the labors of the dairymaid. I think there can be no doubt that this is the best mode of making butter, both with respect to economy of labor and to the quantity and quality of the butter.

In "Milch Cows and Dairy Farming," Mr. Flint says, "in some sections the milk is churned soon after milking; in others, the night's and morning's milk are mixed together and churned at noon; in others, the cream is allowed to rise, when the milk is curdled, and cream, curd and whey, are all churned together."

If any of the readers of the FARMER have had experience in making butter from the whole milk, we hope they will respond to the request of Mr. Douglas.

"GILT-EDGED BUTTER."—HOW TO MAKE GOOD BUTTER.

The inquiries and remarks about "gilt-edged butter" in the FARMER of December 26, reminded me of a little story I once heard of an old Quaker, who sent his two daughters to hear a lecturer who had acquired a "gilt-edged" reputation. After listening attentively to the flowery discourse, the girls went home. As customary the father inquired about the lecture, and asked his daughters what valuable information they had gained. After a moment's hesitation, one of them exclaimed,

"Oh, Pa, if you could have been there! Mr. —— was the most splendid looking man we ever saw; he wore pretty diamonds, had a foreign air, and said so many *beautiful* things that we can't tell one word about it."

The old Quaker very gravely replied, "Well, well, children, thee had better stay at home hereafter, and not attend any more lectures which are too beautiful to be useful."

I suppose "gilt-edged" butter, like the lecture, is so beautiful that nobody can tell anything about it. Just as likely as not it is nothing but butter of a very good quality. I hope not one of the neat, tidy women in Vermont, or in any other State, will think they cannot make nice butter, because they are not able to produce this indescribable, genteel, "gilt-edged" article.

I advise the consumers of the "gilt-edged" butter of Faneuil Hall, not to crack up their indescribable commodity too high, for we poor farmers' wives, who live in rickety houses, do our washing and scrubbing, mind our own healthy babies, sometimes think that we eat just as good sweet, wholesome butter of our own making, as that enjoyed by those who live in marble palaces and pay the "gilt-edged" prices of a fancy market-man,—butter, too, that is made by a process that can be described and taught to our daughters. That it requires care and neatness, we are perfectly willing to admit. When I milk our cow, which I often do, I am very careful not to get any chaff or other barn dirt into the milk pail. As soon as possible after the milk is drawn, I strain it into well washed and scalded tin pans, filling them about half full. I set the milk in a clean, cool room where nothing else is kept. When the milk has yielded all its cream, I skim it off and deposit it in a tin pail. In warm weather I hitch a rope to the pail, and let it down part way into the well. Every time I put cream into the pail I stir it gently. When a sufficient quantity is accumulated, generally once in three days,—as I don't think cream ought to be kept over that length of time in warm weather,—I put it into a clean churn that has stood with cold water in it over night. Sometimes I throw a handful of salt into the cream. My butter always comes quick enough. After draining the butter-

milk from the churn, I put half a pailful of cold water into the churn, then turn the crank back and forward a few times, and draw off the water. This is repeated again, when I remove the butter from the churn with a wooden paddle to a tray half full of cold water. I sprinkle salt into the water, and work the butter over with the paddle, pouring off the water and adding more until it is free from buttermilk. I then salt it, and if I want a little extra touch I add one large spoonful of white sugar to each pound of butter. The next morning early I put it up in plain lumps or lay it down in a vessel. During the whole process I never touch it with my hands.

From November 15, 1867, to May 15, 1868, I made and sold $40 worth of butter from our cow, which was then farrow. Our family numbered four, and we used all the butter we wanted. The butter sold more than paid for the cow, and the milk and butter we used we thought paid for her keeping. MRS. TRASK.

Reading, Mass., Dec., 1868.

A FARMER'S EXPERIENCE AND CONFESSION.

The deep interest which, from boyhood, I have taken in agriculture, and the great number of experiments which I had tried and seen tried, make me often, when reading agricultural papers, feel a desire to furnish an item or two; but the constant flow of business so completely occupies my time that I have been compelled to forego this pleasure. The saving thing about it, however, is the thought that the public do not lose much by it.

——, *Dec.* 20, 1868. —— ——.

REMARKS.—The above, which closes a business letter recently received, expresses, we have no doubt, the experience of many who read the FARMER. But we cannot endorse the remark that the public do not lose much by the neglect to "furnish an item or two" from personal experience and observation, or by way of comment on the "items' which others furnish. Another farmer in sending us a communication, closes with the playful remark, "I can talk it, but you see I can't write it." Here, then, is the trouble with farmers. They have little time to write, and when they do attempt to write they fear it will not do to let it go just as they would "talk it," and so get snarled up in their attempt to "write a composition," or to spell every word just as the dictionary does. Let the spelling and the grammar take care of themselves. Plant the facts firmly on the paper, just as they come to mind, and leave the "office editor" and the printers to fix the spelling and syntax. In this way you can save time, and furnish facts and suggestions that will instruct and interest others.

ROOTING LIMBS OF TREES.

A few weeks since there was a man in this neighborhood exhibiting a limb of an apple tree, on which he had induced to grow, during the past season, a bunch of small fibrous roots as large as a peck measure, by a process which he claimed to have discovered. He said he could take any limb or any number of limbs from a favorite tree, or any tree in bearing condition, and grow roots on it in one season, when it can be taken from the parent tree and set in the ground without checking its growth or bearing capacity. If this can be done every time, and he said it could, it must be quite an advantage to those who wish to get an orchard in bearing immediately. I would like to have the opinion of experienced fruit growers in relation to this discovery published in the FARMER.

ONE INTERESTED.

North Boscawen, N. H., Dec. 20, 1868.

REMARKS.—Grape vines, quinces, and several other vines, shrubs, &c., are propagated by bending down and covering a branch with earth; and it is possible that by some process apple tree limbs might be made to throw out roots, but we should doubt the practical utility of the process. Many plants will root very freely; others require more care. Sometimes the shoot is slit with a slanting cut, one-half or two-thirds of the diameter, and sometimes a narrow ring is taken from the bark of the part buried in the earth.

ANOTHER CURE FOR SCRATCHES.

I send you a receipt for the cure of the grease or scratches, that I have tried, and found to cure. It is this:—one pound of Epsom Salts, one pound of Sulphur, one pound Cream of Tarter, and four ounces of Saltpetre. Pulverize the Saltpetre, mix all together, and give the horse three large spoonfuls at a dose in the feed, moistened, for three mornings; then skip three. Nine doses, cured a very bad case for me. I tried many outward applications, but it still grew worse until I tried this and then it got well. The cause of the disease is in the system, and outward applications are not sufficient to cure. I have made a practice of feeding a little of the medicine at times since, and have not had a case since I used the medicine two years ago. A SUBSCRIBER.

Georgia Plain, Vt., Dec. 14, 1868.

BITING HORSES.

I have a fine mare six years old, which has a bad habit of biting. Although we raised her, she never showed any signs of a disposition to bite before this fall. The habit appears to be growing upon her. Is there anything I can do to stop it? I noticed worms in the manure this morning about an inch long, which I supposed to be pin worms. What is the best thing to give for the worms? Do you think the worms have anything to do with her being cross? If you will answer these questions through the columns of the NEW ENGLAND FARMER you will greatly oblige a

YOUNG FARMER.

West Brookfield, Mass., Dec. 12, 1868.

REMARKS.—We have never owned nor driven a horse seriously addicted to this bad habit; but we have known of animals which were not safe without a muzzle. When once the habit is firmly established we know of no cure. If any of the readers of the FARMER do, we hope they will respond to Young Farmer's request. Here, as elsewhere, an ounce of prevention is worth a pound of cure. Biting is usually the consequence of natural viciousness, or a habit induced by the teasing of boys or thoughtless men. Mr. Stewart, in his "Stable Economy," says, "I have seen biters punished until they trembled in every joint, and were ready to drop, but have never, in any case, known them cured by this treatment, or by any other. The lash is forgotten in an hour, and the horse is as ready and determined to repeat the offence as before. He appears unable to resist temptation, and in its worst form, biting is a spe-

cies of insanity." Mr. Youatt says, "kindness will aggravate the evil, and no degree of severity will correct it." He, however, recommends the Rarey system for training vicious horses, with straps, &c. After the horse is down, he says the operator should confine his treatment to lifting the head, bringing it close down to his own body as he sets upon his shoulder, and forcing both of the jaws into immediate and repeated contact.

When we consider the danger from this habit, it is surprising that so many will tickle and pinch horses merely to see them resent the indignity. Such horse-play should be carefully avoided by every one that has anything to do with a horse, unless it is desirable to educate him into absolute viciousness.

KICKING COWS.

I think I can give our friend who is plagued by the kicking cow, advice that will be of benefit to him. My practice is,—when kindness and gentle means fail, which is rarely the case,—when the cow attempts to kick, to grapple the leg just above the gambrel joint, and lift it as high or higher than her belly, straight backwards; having first made arrangements so that she cannot wheel round from me. In this position I hold it till she gives up struggling, then let it down. After a few trials the slightest touch on her thigh will remind her that she is perfectly under her master's control, and will generally become as gentle as a lamb.

The idea of holding a kicking cow's leg by main strength may appear somewhat Samsonian to those who have never tried it. But if the leg is grasped firmly and lifted at once high enough, they will find no difficulty in doing it. In a case like his I should stand by the side of the cow, place my left hand firmly on her thigh and commence milking with the other hand, when I should be all ready for the struggle, which would not be long or hard.

Roxbury, Vt., Dec. 30, 1868. W. I. SIMONDS.

COST OF RAISING PORK.

I have this day killed my pigs, and think they have done very well, considering all things. They were eight months and ten days old. I have had them 220 days. The two weighed when I got them 34 pounds. They weighed when dressed 619½. I have kept an account with them. It may be interesting to others:—

May 20, 1868.	To paid for pigs	$ 8.00
Aug.-Oct	to 450 lbs meal	12.12
Nov.-Dec.	" 15 bush. corn, 8s.	19 96
Dec. 26,	" butchering	1 50
		$41.58

They had plenty of milk all of the time, and while I was husking I fed them nothing but soft corn for one month. The meal charged was some that I bought, and the corn I raised and had ground. The meal I scalded after it began to be cold weather. The pigs were a mixture of the common breed and Chester County. If you think the above, which is my first attempt at writing for a paper, worthy of note, you may put in shape for your Extracts and Replies. SUBSCRIBER.

Rockingham, Vt., Dec. 26, 1868.

FEEDING COWS FOR MILK.

I notice there is a discussion going on among the milk producers in your vicinity. Being a milk producer myself for the market here in Concord, I would like to inquire how the milkmen feed their cows during the winter to make them give the most milk on the least expense. At present, I feed on meal from cob and corn ground together. I give each new milch cow three quarts meal and three quarts shorts per day, mixed up with hot water, about a pailful of water to each mess. How can I improve on this feed? J. V. A.

West Concord, N. H., Dec. 21, 1868.

REMEDY FOR BORERS.

After twenty years' experience, in which I have found it to work not only to my own entire satisfaction, but to that of others who have tried it, I can confidently recommend stopping up the holes of borers in trees with hard soap, as an infallible cure for this pest to our orchards. Though simple, try it, brother farmers. Permit me to say that I like your paper very much. HARVEY B. PIERCE.

North Dartmouth, Mass., Nov. 30, 1868.

AGRICULTURAL ITEMS.

—The first shipment of wheat from Chicago was 78 bushels in 1838. This year the amount shipped is 50,000,000.

—The *California Farmer* of Nov. 19, says there are fifty thousand tons of wheat in the warehouses at San Francisco, or about one quarter of the year's surplus.

—The old Massachusetts Society for Promoting Agriculture voted at a late meeting to offer two prizes, of $300 and $200, for best experiments in the State in the artificial propagation of fish.

—Every part feeds a part. Hence put the droppings of grain-fed animals on corn and wheat fields, of hay-fed animals on grass lots, and the droppings of forests on orchards.

—A rock maple was recently cut near West Concord, N. H., whose circumference when chopped, was fourteen feet nine inches. It was at least one hundred feet high, and had been tapped for sugaring one hundred and six years.

—The Early Rose sprang from seeds in a potato ball. From the seeds of that one ball seven kinds of potatoes have been raised; and, what is stranger than all, each of the seven varieties is excellent in its way.

—The *Prairie Farmer* says that at least one hundred cattle have died in Story County, Iowa, of a disease supposed to have been caused by eating smut which was very abundant on the corn in the fields where they were fed.

—The Worcester County West (Barre,) Mass., Agricultural Society has re-elected its President and Secretary, J. W. Jenkins and Charles Brimblecom, and has chosen John T. Ellsworth, a member of the State Board of Agriculture for three years.

—A correspondent of the *Mirror and Farmer* says that Mr. Aaron S. Bucknam, of New Ipswich, N. H., obtained from *seventy-one quarts and one pint of milk*, the present autumn, *eleven pounds four ounces* of butter, being a fraction more than one pound to six and one-half quarts. The milk was obtained from four cows, running in a pasture

fed close, with two hours' baiting daily in "fall feed." No other extra feed, except that one of the number, a young cow, was fed one pint of meal daily.

—One of the features of the Iowa State Fair was the sale of choice farm stock. Ten bull calves, Short-Horned, were sold for $200 each, one for $300, and another for $375. Cotswold ewes sold at $44, and two bucks at $65 per head. Berkshire sow pigs went for $25, and a boar pig nine months old went for $50.

—An old stable builder in Baltimore says he has come to the conclusion, after 25 years' trial, that a two-inch white pine plank floor, laid level, with a square iron 2x2½ grating, so placed as to receive the urine, is the best arrangement for a horse. Clay, stones, concrete, &c., he rejects. The width of a horse-stall should be four feet nine nches.

—According to experiments made at the Michigan Agricultural College, the amount of milk consumed by pigs to produce one pound of increase was, for the first week, 7.20 lbs.; for the second week, 7.70 lbs.; for the third week, 12.52 lbs.; and for the fourth week, 10.56 lbs. Hence the younger the animal the more rapidly it gains.

—Speaking about the bed quilts of many colors and innumerable pieces which take prizes at agricultural fairs, "Aunt Lucy" says in the *Rural New Yorker*, "I have lived forty-six years and brought up six children, and have never yet found time to buy calico and cut it up into little pieces, half an inch square, for the purpose of sewing them together again, just to see how many I could make of it."

—In eastern Virginia are extensive forests of large trees where old tobacco hills and corn furrows, made long ago, can be seen; and in eastern Massachusetts trees fit for saw-logs are casting a dense shade over rows of old corn hills, which retain nearly their original form and size. Need such a country anticipate the evils which are experienced in some parts of the world from the removal of forests?

—The increase of the rabbits introduced into Australia from England has become so enormous that in some parts of the country they threaten to starve the sheep out of their runs. One farmer estimates that it will cost him £10,000 in wages to trappers and killers before he expels them from his grounds. They are greedy for some of the most beautiful cultivated flowers, and are becoming the terror of horticulturists.

—An exchange, remarking on the chafing of the breasts of horses, says—"The common practice of using pads or sheepskin under the collar is objectionable, especially in warm weather, because it accumulates heat and makes the breast tender. A better way is to take a piece of thick and smooth leather, cut it out just the size of the collar, or a little wider, and let it lie flat on the neck and shoulders of the horse. This will lie smooth on the neck, while the collar itself moves about, and so it will prevent chafing. In addition to this, let the breast of working-horses be washed off every night with clean water.

—According to a German *savant*, the decay with which the trees in the promenades and gardens of Berlin, as well as of other large cities, have recently been affected, arises chiefly from the tremulous movement communicated to the soil by rapid locomotion; the perfect adherence between the roots and the earth, so necessary for the absorption of nourishing juices is, he declares, destroyed by this continual agitation.

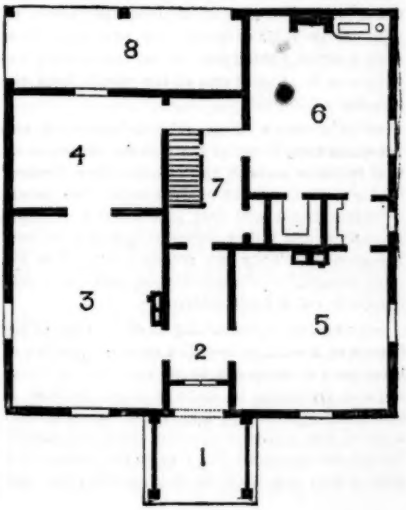
—The following are the officers of the Merrimac, N. H., Agricultural Society for 1869. President, Hon. Aaron Whittemore, Pembroke; Vice President, John McNeill, Concord; Secretary, J. E. Pecker, Concord; Treasurer, Abel Hutchins, Concord; Directors, John C. Gage, Fisherville; Simeon Abbott, West Concord; John C. Pearson, Webster; William Parker, Suncook; Daniel E. Hill, Northfield; Heman Sanborn, East Concord; Charles H. Carpenter, Chichester. This is the oldest agricultural association in the State, it having been founded in 1824.

—The annual meeting of the Contoocook, N. H., Agricultural and Mechanical Society, was held recently. The principal newly elected officers are: President, Cornelius Coolidge, Hillsborough; Vice Presidents, J. B. Moulton, Weare; A. S. Woods, Hancock; Secretary, J. F. Chase, Deering; Assistant Secretary, Daniel Johnson, Weare: Treasurer, J. C. Cambell, Hillsborough. The Fair for 1869 was located at Hillsborough Bridge. The financial report showed a balance of $400 in the treasury after all the bills had been paid.

BUTTER FROM MILK OF JERSEY COWS.—The statement was recently made by one of our correspondents that the rich milk of the Alderney or Jersey cows was especially valuable on account of its superior keeping qualities. One milkman asserted that milk from his Jersey cows would keep sweet from ten to twelve hours longer than that from any other cows in his herd. If such is a characteristic of the milk from Jersey cows, we should naturally suppose that butter made from this milk would be likely to possess something of the same quality. But we have never tested it thoroughly ourselves. We notice that one of our contemporaries says that such is not the case; that "butter made from the milk of Jersey cows is altogether more difficult to keep than most other kinds of butter." What say the manufacturers of the beautiful "gilt-edged" Jersey cow butter to this assertion?

A VILLAGE RESIDENCE.

Our illustration this month represents a somewhat more showy and expensive house than most of the series which was designed by Mr. Geo. E. Harney, and which have been occasionally published in the FARMER during the few years past. His object in this plan is to furnish accommodations particularly adapted to the wants of the village or suburban resident. The plan is nearly square, measuring 30 by 36 feet. The front door is recessed three feet, and opens into a vestibule, No. 2, six feet wide. On the left is the parlor, No. 3, 14 feet by 20, connecting by means of glazed folding doors with the library, No. 4, 10 by 14 feet. On the right of the vestibule is the dining-room, No. 5, 14 feet by 16, and back of the dining-room is the kitchen, No. 6, 13 feet by 16. Between these two rooms is a passage containing cupboards for china. The kitchen is furnished with a large store-closet, and a sink, and pump. In order to economise room, we have provided but one staircase and have placed it in a convenient but retired position in the rear hall, No. 7, separated from the vestibule by a glazed door. For sleeping accommodation we have provided



four chambers, with closets, and a bathing-room on the second floor, and three chambers, and a clothing-room in the attics, making in all seven chambers; a large number for a house of this size.

The first story is ten feet high, and the second nine and a half. Built of wood, with slate roof, Mr. Harney estimated that this house would cost from $3800 to 4000, with materials and labor at the usual prices previous to the late war.

SUBSTITUTES FOR MILK IN RAISING CALVES.

A correspondent in Nebraska writes to inquire what will be the proper food for young calves. He states that he can obtain several from excellent milkers, but has no milk to feed them. It is difficult to raise calves in winter and have them do well even when they have the advantage of the natural food drawn directly from the cow. It is more difficult to have them thrive if brought up by hand and fed on milk; and the difficulty will be greater still if no milk can be obtained.

All attempts to make an artificial milk that will be healthful have resulted in failures. Leibeg made an artificial milk that contained the identical ingredients of common milk, and they were united in the same proportion. It was thought that great good would result from the discovery; but all the babies that were fed on it for a considerable time, died. Fresh milk seems to be absolutely essential to the calf during the first few days of its existence. After this, the supply of milk may be diminished, or the cream may be separated from it before it is used. If we do this, however, we must keep up this loss in the oleaginous principle by means of some such substance as flaxseed or oil cake.

Probably the best food that could be obtained for young calves in the winter time, if no milk can be obtained, is a mixture of flax seed jelly and meal gruel. Oat-meal is unquestionably to be preferred to other kinds, as it contains a large amount of gluten, which very nearly resembles casein in its chemical composition. Next to oat-meal, wheat screenings, ground but not bolted, would furnish the largest amount of nitrogenized food for the least expense. Too much rye meal would probably bring on scurvy. Indian meal, made into a gruel, should be sparingly used at first, but as the calf gains in strength, and its digestive organs are better developed, it should become the principal article of food.

The calf shoud be early taught to eat hay, by tying up before him a bundle of nicely cured, tender grass—rowen is best for the purpose. Great care should be given to keeping the calves well supplied with water that is not too cold. Their beds must be warm and clean. Our German women contrive to raise many calves by hand, and their skill is principally to be attributed to their uniform attention to them, and their care in thoroughly cooking their food.—*Prairie Farmer.*

GREAT EATERS.

The fact that animals or a race of animals are small eaters, or, in common language, easily kept, is generally, we believe, regarded by farmers as a high recommendation. Prof. J. Harris favors the great eaters, in an article in the *American Agriculturist*, in which he says:

It seems clear to my mind that there is an immense advantage in getting animals to eat, digest, and assimilate *a large amount* of food, for the simple reason that it takes a very large proportion of the food to sustain the vital functions, and all the growth of the animal is derived from the food eaten in excess of this amount. I believe this is now the most important point to which breeders can direct their attention. The amount of offal in well-bred animals has been reduced by skilful breeding to a minimum. Now let them aim to increase the digestive powers. Said an experienced dairyman, "I never knew a cow that was a great milker that was not a great eater." This is my idea exactly. And what we want is a breed that will eat 25 or 50 per cent. more in proportion to live weight than any animals we now have. They would, *in proportion to the food consumed*, grow twice as fast as they now do. I have very little doubt as to the truth of this proposition; and if it *is* true, the sooner it is acknowledged and acted on by our breeders the better.

Overcrowding the Cities.—Under this title an excellent city paper says:—"One of the most painful phenomena of modern life is the wide-spread tendency, on the part of young men, to flock to the great cities. With the best opportunities for success, quiet but steady in the pursuits of rural life, they are allured by dreams of quick fortunes and ease from toil in the great centres of business, and abandon with alacrity the certain for the visionary. The simple truth is—and every young man who contemplates leaving his country home for town life ought to heed it—the cities are, and have been for years, overcrowded. So far from having room for more, they could well spare a large surplus. The supply for situations such as most country boys desire—clerkships of the various kinds—is immensely in excess of the demand. For every position offered, hundreds of hungry applicants, skilled in the duties required, lie in wait, and are only too glad to get employment at any price."

The above warning may be applied to young women with a double emphasis.

THE BEST BREEDS OF COWS.

THERE are now several distinct races of cattle in the country possessing very different characteristics and properties, and it becomes an interesting and important question to the farmer, what breed shall I keep and raise? To answer this question intelligently, several circumstances must be taken into consideration. In the first place, for what purpose does the farmer raise his stock? Is it for the shambles, or for general dairy purposes, or to furnish milk for the market?

If it is for beef, the animal that will make the most beef at the least expense of keeping, and in the shortest time, will be sought. If it is for making butter and cheese, the breed that will yield the largest amount of these products, at the least cost, and which possess the requisite hardiness and the least liability to disease, will best meet this object. If it is to furnish milk for the market, then quantity of milk, rather than the quality is sought, and those cows that yield the largest quantity, and continue the flow the longest will be preferred.

But these are not the only circumstances to be taken into the account. The soil, the climate, the facilities for reaching the market, and the probability that the progeny will possess the qualities of the parents, must also be considered.

We have, first, the native stock; by which we mean that which descended from the importations of the early settlers, and which constituted nearly the whole stock in the country previous to the close of the last war with England in 1815. This stock is of moderate size, hardy and well acclimated, and among it may be found many superior animals both for beef and the dairy; but in general they are deficient in beauty of form, and in those points that are desired by the butcher, and their progeny is of very uncertain character.

Next we have the Durham or Short-horns, a large, thrifty breed of cattle, that make fine oxen and yield a large amount of beef. They are less hardy than the native race in the colder parts of the country, and require high keeping. Where climate and soil are suited to them, they probably meet the wants of both the dairy and the beef raiser better than any other breed.

The Devons are a beautiful and hardy race, smaller than the Durhams, giving less milk, but of a richer quality, and they arrive at maturity earlier. They are easily kept in good condition, and generally, in the colder parts of the country, are fitted for the butcher a year earlier than the Durhams. They are active and docile, and the oxen make fine workers.

The Ayrshires are slightly larger than the Devons, less symmetrical in form, but hardy and active, and yield a larger quantity of milk, at the same cost of keeping, than any other breed which we have. Individuals may be found among the native stock that will yield as large a quantity of milk as any of the Ayrshires, but the quality of yielding a large quantity of milk has become so well established in the Ayrshire breed, that we may breed from them with much greater certainty of retaining this quality than from the best of the native stock. They fatten easily when not giving milk, and make good beef.

The Jerseys are a small race of animals, with but little beauty of form, except when young, and possessing at no period of life the the points desired by the butcher. They are of but little value either for veal or beef, and they consume more food than any other breed among us, in proportion to their weight. But their milk is richer than that of any of the larger breeds. Their food seems to be expended largely in elaborating butter, which often constitutes from twenty to twenty-five per cent. of their milk. They commence to breed very young, and when well kept continue to give a good quantity of milk through the year. In quantity their milk is less than the Ayrshires and Durhams.

The Dutch breed, recently introduced is a large race, well fitted for beef, and yield a large quantity of milk, but requiring rich pastures and high feed.

Some fancy breeds, as the Kerry and the Britanny, fitted rather for the park and the lawn than for the farm, have lately been introduced.

We said that soil and climate must be taken into consideration. The larger breeds are found most profitable where they can be sustained upon rich pasturage during a large part of the year, or upon intervales and river bottoms, which yield large quantities of good hay and roots for the long winters. Upon

rocky hills and in a cold climate, where the grass starts late, and the cattle must be taken early from the pasture and then fed upon hay of an inferior quality, smaller breeds will thrive better and yield better returns for the cost of keeping.

But what is the object of the farmer in keeping stock? If he is near the market, where his milk can be daily served to his customers, and where the butcher will pay the highest price for his calves, he will raise but little stock, and make only butter for his own family, if he even do that. He will seek for those cows that will yield the most milk, without reference to beef, or the quality of the milk. He is satisfied with any cow that will fill his pail at a reasonable cost of keeping, without regard to breed or grade. He will go among the beef raisers or dairymen, and purchase those that have the points of large milkers, believing it cheaper than to raise them himself. This class of men will generally, in New England, keep the Ayrshire cows or their grades, and we think they will find that the more Ayrshire blood they get the better their wants will be met. In the lower part of the valley of the Connecticut, in the neighborhood of New York, Philadelphia or Cincinnati, where there is an abundance of rich pasturage, they will prefer the Short-horns or their grades, because while they give an equal quantity of milk, their calves are worth more for veal, and the cows themselves, when they cease to give milk, are worth more for beef.

If the object is butter making, the same considerations of soil and climate will go far to decide what breed shall be kept. Where the soil and climate are suited to them, the Short-horns or their grades will be chosen. In the colder States the Devons or their grades with the Ayrshires will be preferred. Some prefer to keep a few Alderneys, believing that their cream added to that of the rest of the herd, makes the butter of the whole better. Those who keep one or two cows for the use of the family, will be glad to get Alderneys, on account of the superior quality of both the milk and butter,—beef and veal being of no consideration with such, in comparison to the quality of the milk and butter.

The stock raisers, too, must be governed by considerations of soil and climate. The Vermont stock raisers generally prefer the Devons on account of their hardiness and early maturity, believing that they yield a better return for the cost of keeping than the larger breeds. In Western New York, Pennsylvania, Ohio, Illinois and Kentucky, the Short-horns are justly preferred. In these States we find the most magnificent specimens of this race. Their pastures afford the very conditions they need. Hence the breeders of these States attach but little value to the smaller breeds.

The question, then, which is the best breed of cows, like the question, which is the best grape, must be answered by reference to local considerations. There is no one breed of cattle, and no one grape that is best throughout our widely extended country, with its great diversity of soil and climate. That breed or plant is best for any locality that is best suited to the soil or climate, or that can best resist the obstacles to its thrift and population. We will close with a single remark—never keep a poor cow of any breed, and especially never attempt to raise her progeny.

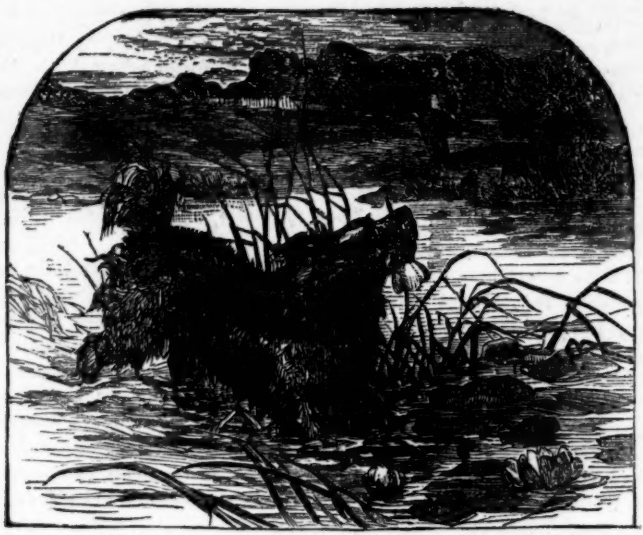
Youths' Department.

A SPIDER'S MATERNAL AFFECTION.

A correspondent of *Hardwicke's Science Gossip* says:—

"In the course of last summer, when out for a naturalist's 'constitutional,' a circumstance came under my notice, which, in justice to the 'poison-fang fraternity,' I have thought ought to be told. In an old hedge, dry as dust, I found a great many varieties of spiders. One of these, a dark colored, grizzly-looking jade, I captured, with a view to our becoming better acquainted. Under and in immediate contact with the abdomen, she carried a cocoon, containing (I presume) eggs or baby-spiders.

In form and size it resembled a small grain and you shall never be put to shame. Now of hempseed, and was kept in its place by the first pair of legs clasping it. When the cocoon was severed from her, the mother would not leave the palm of my hand on which I held them, but stood at a short distance apparently watching intently her precious load, towards which she several times made a rush, and with a rapidity that eluded my sight, picked it up and attempted to make off with it. I several times deprived this dutiful mother of her charge, and as often she proved that she valued her own life less than its loss. Indeed, the 'first law of nature,' self-preservation, seemed in her case to have been suspended."



[Copied by permission from *Appleton's Juvenile Annual.*]

THE DOG AND THE WATER-LILY.

The noon was shady, and soft airs
  Swept Ouse's silent tide,
When, 'scaped from literary cares,
  I wandered by its side.

My spaniel, prettiest of the race,
  And high in pedigree
(Two nymphs adorned with every grace
  That spaniel found for me),

Now, wantoned, lost in flags and reeds,
  Now starting into sight,
Pursued the swallow o'er the meads,
  With scarce a slower flight.

It was the time when Ouse displayed
  Her lilies newly blown;
Their beauties I intent surveyed,
  And one I wished my own.

With cane extended far, I sought
  To steer it close to land:
But still the prize, though nearly caught,
  Escaped my eager hand.

Beau marked my unsuccessful pains
  With fixed considerate face,
And puzzling set his puppy brains
  To comprehend the case.

But, with a chirrup clear and strong
  Dispersing all his dream,
I thence withdrew, and followed long
  The windings of the stream.

My ramble ended, I returned;
  Beau, trotting far before,
The floating wreath again discerned
  And plunging left the shore.

I saw him, with that lily cropped,
  Impatient swim to meet
My quick approach, and soon he dropped
  The treasure at my feet.

Charmed with the sight, "The world," I cried,
  "Shall hear of this thy deed:
My song shall mortify the pride
  Of man's superior breed:

"But chief myself I will enjoin,
  Awake at duty's call,
To show a love as prompt as thine
  To him who gives me all."

COWPER.

A SHORT STORY ABOUT HONESTY.

One evening a poor man and his son, a little boy, sat by the wayside, near the gate of an old town in Germany. The father took a loaf of bread which he had bought in town and broke it, and gave half to his son.

"Not so, father," said the boy; "I shall not eat until after you. You have been working all day, for small wages, to support me, and you must be very hungry. I shall wait until you are done."

"You speak kindly, my son," replied the father. "Your love to me does me more good than my food; and those eyes of yours remind me of your dear mother, who has left us, and told you to love me as she used to do; and, indeed, my boy, you have been a great strength and support to me. But now I have eaten the first morsel to please you, it is your turn now to eat."

"Thank you, father; but break this piece in two, and take a little more; you see the loaf is not large, and you require much more than I do."

"I shall divide the loaf for you, my boy, but eat it I shall not. I have abundance; and let us thank God for his goodness, in giving

us what is better still, cheerful and contented hearts. He who gave us the living bread to nourish our immortal souls, how shall he not give us all other food, which is necessary to support our mortal bodies?"

The father and son thanked God, and they began to cut the loaf in pieces, to begin their frugal meal. But as they cut one portion of the loaf, there fell out several large pieces of gold, of great value. The little boy gave a shout of joy, and was springing forward to grasp the unexpected treasure, when he was pulled back by his father.

"My son, my son!" he cried, "do not touch that money; it is not ours."

"But whose is it, father, if it is not ours?"

"I know not as to whom it belongs, but probably it was put there by the baker through some mistake. We must inquire. Run—"

"But, father," interrupted the boy, "you are poor and needy, and you have bought the loaf, and then the baker may tell a lie, and—"

"I will not listen to you, my boy; I bought the loaf, but I did not buy the gold in it. If the baker sent it to me in ignorance, I shall not be so dishonest as to take advantage of him; remember Him who told us to do to others as we would have others to do to us. The baker may possibly cheat us; I am poor, but that is no sin. If we share the poverty of Jesus, God's own Son, oh! let us share, also, his goodness and his trust in God. We may never be rich, but we may always be honest. We may die in starvation, but God's will be done, should we die in doing it. Yes, my boy, trust in God, and walk in his ways, run to the baker, and bring him here, and I will watch the gold until he comes."

So the boy ran after the baker.

"Brother workman," said the old man, "you have made some mistake, and almost lost your money," and he showed the baker the gold, and told how it had been found. "Is it thine?" asked the father. "If it is, take it away."

"My father, baker, is very poor, and—"

"Silence, my child; put me not to shame by thy complaints. I am glad we have saved the man from losing his money."

The baker had been gazing alternately at the honest father and the eager boy, and the gold which lay glittering on the green turf. "Thou art indeed an honest fellow," said the baker; "and my neighbor, David, the flax-dresser, spoke the truth when he said thou wert the most honest man in the town. Now, I shall tell thee about the gold. A stranger came to my shop three days ago, and gave me that loaf, and told me to sell it cheaply, or to give it to the most honest poor man whom I knew in the city. I told David to send thee to me as a customer this morning; as thou wouldst not take the loaf for nothing, I sold it to thee, as thou knowest, for the last penny in thy purse; and the loaf, with all its treasure—and certainly, it is not small!—is thine, and God grant thee a blessing with it!"

The poor man bent his head to the ground, while the tears fell from his eyes. His boy ran and put his arms around his neck and said:

"I shall always, like you, my father, trust God, and do what is right; for I am sure it will never put us to shame."—*Edinburgh Christian Magazine.*

A WORD TO BOYS.

Come, boys, and listen a few moments to your uncle. You have now arrived at an age when you must begin to think about doing something for yourselves. The first piece of advice I have for you is, to do everything well which you undertake. There is but little danger of your being too particular in this respect. A boy who is careful to draw a straight line on his slate, will be very likely to make a straight line through life. There is no position in life in which you will not be called upon to act as exact as possible. Step into the jeweller's shop, and see how careful the workman must be in finishing up the article he holds in his hands. Visit the ship-yard, and the man with the broad-ax must learn to hew on a line, or be dismissed. You think of being a clerk. Well, remember that a mistake there is a little less than a crime. I never saw a man who was very particular about his affairs that was not successful. How exact is a military officer in the command of a body of men. A clumsy sailor will never rise to the command of a ship.

But there is one great danger which besets many young men at the present day. It is the disposition to avoid all solid improvement, and take up with subjects that require no thought, and which serve as mere warfare with godliness, our portion will be that of the ungodly. As the tree falleth so shall it lie. We shall reap what we have sown.

"Let my example warn you of the fatal error into which you have fallen," said the gay Sir Francis Delaval, near the end of his life. "Pursue what is useful! pursue what is useful!" Reader, if you would not want to make your life a curse, present and eternal, "pursue what is useful.

GENTLE UTTERANCE.—When a boy of fourteen, following a plough, drawn by oxen, our father said the first day of work, "Let us see who can talk the lowest to Buck and Bright; it isn't the sound that makes the team go, but the understanding that springs up between driver and team." The thing was new to our ears. We had always heard the "woa haw, Buck," or the "woa haw, Bright," given in tones of bawling only, and had grown to the belief that bawling was the only way of driving. But a little experience on the low keys showed that an ox, dumb and slow as some call him, had not only a show of intellect, but also of the proprieties of his position. Buck and Bright answered as well to a few words quietly spoken as to the many vociferated.

Ladies' Department.

LITTLE BROWN HANDS.

They drive home the cows from the pasture,
Up through the long shady lane,
Where the quail whistles loud in the wheat fields
That are yellow with ripening grain.
They find, in the thick waving grasses,
Where the scarlet-tipped strawberry grows;
They gather the earliest snow-drops,
And the first crimson buds of the rose.

They toss the new hay in the meadow;
They gather the elder-bloom white;
They find where the dusky grapes purple
In the soft-tinted October light;
They know where the apples hang ripest,
And are sweeter than Italy's wines;
They know where the fruit hangs the thickest
On the long, thorny blackberry vines.

They gather the delicate sea-weeds,
And build tiny castles of sand;
They pick up the beautiful sea-shells,
Fairy barks that have drifted to land;
They wave from the tall rocking tree-tops,
Where the oriole's hammock-nest swings,
And at night-time are folded in slumber
By a song that a fond mother sings.

Those who toil bravely are strongest;
The humble and poor become great;
And from these brown-handed children
Shall grow mighty rulers of State.
The pen of the author and statesman,—
The noble and wise of the land,—
The sword and the chisel and pallette
Shall be held in the little brown hand.

HOUSEHOLD ECONOMY.

CONTRIBUTED FOR THE NEW ENGLAND FARMER.

Pickling Apples.

Have you a good receipt for pickling apples? C. M.

West Milton, Vt., Nov. 19, 1868.

REMARKS.—Will some of the excellent cooks among the readers of the FARMER reply to the above? On reference to the books we find the following, which may be of some use, till better directions are given:—

Pickle for Vegetables.—Six quarts of the very best vinegar, one pound of salt, a quarter of a pound of ginger, one ounce of mace, half a pound of chalots, one table spoonful cayenne pepper, two ounces of white peppercorns, and two ounces of mustard seed. Boil all these well together, and when cold put into a jar. You may add what green vegetables or fruit you like, provided they are fresh.—*Country Gentleman.*

There, that comes the nearest to "pickling apples" of anything we find. But as "sauce for goose," &c., here is one for

Pickling Peaches.—Wipe them dry and stick into each one three or four cloves, and place in a crock; prepare a pickle as follows: To one peck of peaches allow three pounds of sugar and nearly one quart of vinegar. Scald and pour over the fruit three successive mornings.

How to Cook Sweet Apples and Fresh Meat.

Instead of baking my apples, I put them into a porcelain kettle, usually about three quarts at a time. Then add a pint of water, cover them with a cloth and put it on to the stove and steam them till tender. Then remove the cloth, and add half a teacup of molasses and let them cook until there is but little syrup and you have a dish far superior to baked apples.

Fresh meats, pork excepted, should never be roasted or baked, but steamed. Put a quantity of water into the pot and then put the meat into the steamer, but not to come in contact with the water, and steam until tender. The juices are thus all retained in the meat, and of course it is much more nourishing and palatable. Try it, and see how tender a tough piece of meat can be made. G.

Bethel, Me., 1868.

CHILDREN AND THEIR SAYINGS.

A friend of mine has two bright little boys —Freddy, between three and four years old, and Willie about five. A chronicle of their doings and sayings would fill a volume, but two specimens must suffice.

Both were very fond of milk, and a mug of it always completed their supper. But while in the country last summer, it so chanced that they one day saw the girl milking.

"There, Willie," said Freddy, "you see that, do you? I don't want any more milk after the cow's had it," and he withdrew very much disgusted.

That evening, when their mugs of milk were placed on the table, both stood untouched. A reason of this phenomenon being asked, Freddy simply declared that he did not want any milk after the cow had had it, but further refused to explain. Willie, however, told of the discovery of the morning.

The mother then explained to them that the milk did not come to them second-hand—that the cow ate grass, which was changed into milk by a wonderful chemical process, akin to that which produced everything in Nature. In the light of this explanation Willie was satisfied, but Freddy still turned up his nose at milk, sticking to the original proposition.

After supper, Willie, who on these important occasions always acted as expounder, took his brother aside into a corner. "It's all

right, Freddy," he said, "and you can just go on drinking your milk again. The cow eats grass, and that's what makes it. Now if the cow didn't eat the grass, you'd have to, you see. That's what the cow's for."

Freddy resumed his evening draughts. To his mind the only alternative was eating grass, and from that he shrank.

How observant children are, and how their ears prick up at an insinuation that anything is going on which they are not particularly desired to see or hear!

A little fellow—a "minister's son," by the way—sat on the floor one afternoon, playing with his blocks, when some ladies called on his mamma. Very soon the conversation turned (I am sorry to say) on a bit of scandal that was in the village. Remembering suddenly that the child was in the room, and not knowing exactly how much he might understand of what was being said, an abrupt pause was made in the conversation.

There sat the little fellow, busy with his blocks, and in reality not heeding a word of what was being said. But no sooner did the pause come than he turned round, and rolling on the floor, laughing as though his little sides would burst, shouted: "Go right on! that's just such as I like to hear every day!"

HOW TO BOIL POTATOES.

Was it not Lord Séfton or some other equally celebrated epicure who, being on the committee of a club deciding on the choice of a new *chef*, after the most abstruse subtleties of art had been exhausted, put this simple and staggering question, "Can you cook a potato?" Whether the chef fainted or challenged Lord S., tradition—being, indeed, often rather hard of hearing—has not condescended to relate.

But Lord Sefton was right; no doubt in the mere boiling of a potato the profoundest chemical laws are evolved, and a Faraday might have lectured upon the process as embracing all the mysteries of the kitchen. It involves the discovery of the powers of steam and the laws of caloric, though all these are known by implication to every good and thoughtful cook.

Choose your potatoes carefully; the yellow are more worthy than the red, and the red are more worthy than the white. Potatoes are best of a moderate size, without specks, heavy, and clear in the rind. They should not be washed until they are pared and prepared for cooking. Boil, Dr. Kitchener (what a fortunate name for a writer on gastronomy!) says, potatoes of the same size together; otherwise the smaller ones will be boiled to pieces before their larger brethren are softened at the core. Above all things, do not fill your sauce-pan more than half full; and remember that it is especially important not to put more water than will cover the potatoes about an inch, so that, allowing for waste in boiling, they may still just be covered.

Set them on a moderate fire till the lid of the sauce-pan begins to trot and bump; then lift the pot off the fire to the hob, there to simmer as slowly as possible till the potatoes will admit the prongs of a steel fork. Moderate-sized potatoes take about twenty minutes' boiling. The cracking of the coats is no proof of their being done, as some potatoes, when boiled too fast, will open before they are half done; when the fork test satisfies you pour off the water, uncover the sauce-pan, and set it by the fire for fifteen or twenty minutes, so as to let the moisture pass off in steam. The potatoes will then come to table dry and mealy.

DRAWING-ROOM FURNITURE.

Harper's Bazar gives the following description of the prevailing styles of Drawing-Room Furniture:—

Furniture for drawing-rooms is copied from the Louis Seize period. This differs from the Pompadour style in heavy, broad, straight, sofas, and chairs with low square backs, stuffed and tufted throughout, the wood of the frame visible only at the feet. Gilded wood is greatly used. The most showy suits are of gilt or whitewood covered with satin of a solid color, such as pale blue, light green, or fawn color. The cherry-colored satin is found to be most generally becoming. Pear-wood stained to represent ebony is combined with gilt, throwing it into bold relief. Tasteful designers deplore the elaborate use of gilt, and only commend it when associated with other woods. It has always a tawdry look, and is soon tarnished. The fashion will not be a permanent one.

Satin and the terry reps thickly tufted are used for upholstery. Brocatel is entirely out of fashion. The beautiful tapestries are in better keeping with the Louis Quinze styles, but have never been properly appreciated in this country.

An elegant drawing-room lately furnished has a moquette carpet, pearl color, strewn with garlands of flowers. The furniture is upholstered with light blue satin, tufted and edged with a tri-colored cord, cherry, blue and drab. Curtains of the same satin with a tapestry border, in which these three colors enter. Lace shades beneath. The long marquise sofa consists of a French *confidante*, or sofa for two, with marquise arm-chairs attached to the ends. Variously shaped satin chairs are about the room, and upright reception chairs of all gilt in bamboo pattern.

Ebony cabinets are low and flat-topped, and are inlaid with marquetry of the Algerian Tuya wood, the purple amaranth and gilt. The cover is of the colored Spanish marble brought from the Pyrenees. A cabinet of

fancy woods, an inlaid table, or a writing-desk in a bourdoir afford a pretty relief to rooms furnished with plain woods.

Faience, a clay material with raised figures, is being introduced for medallions, ornaments in furniture, vases, nnd jardinieres. The designs are antique, the colors deep and strong, somewhat resembling majolica. A valuable piece shown us is a large vase from the French Exposition. It is tan-colored, with raised flowers in natural hues. The price is $200.

Parlor suits of solid black walnut, upholstered with wool reps, are the best choice for people of moderate means. These are made up in as good style as the most expensive material, but in less elaborate design. Plush is being used again by economical families who have sitting-room and parlor in one. It wears well, and is not expensive. A handsome suit of drab reps has a wide stripe of scarlet plush in the centre of each piece. The narrow frames of mantle-mirrors are covered with scarlet plush edged with gilt and ebony.

LOSS OF CHILDREN.

Those who have never passed through this fiery furnace, which tries the inmost heart, cannot sympathise with bereaved parents whose hearts bleed over their children dead. To describe the anguish which rends their hearts as they gaze upon the loved forms on whom their fondest hopes and aspirations had rested so firmly, now cold and lifeless in their coffin home, would require a pen dipped in the very essence of the sublimest sorrow itself. None but the parents can feel it, and none but those who have mourned like them, can sympathize with those who mourn the death of their children. The loss no power on earth can bring them back, and place them again beneath their parents' loving gaze and fond care. From earth they have taken their final departure, never, never to return. The little chairs then occupied, the little plate and knife and fork they used, will be to them of service no more—but merely lonely momentoes of their existence. The patter of their little feet upon the floor, and the music of their sweet, sweet voices, will greet the parents ear never again on earth. All will be a recurrence of all that is dreary and dismal. But hope, plumed by religion, points to a happy meeting in another and better world.

SPICES AND AROMATIC HERBS.—Speaking of the spices employed as seasoning for pies, gelatine, &c., an author writes:—

The best way to have these spices good is to prepare them oneself. The following are the proportions in ordinary cookery: Place in a paper bag quarter of an ounce of thyme, quarter ounce of bay leaf, eighth ounce of marjoram, eighth ounce rosemary; put the bag into the hot screen till the herbs are dry; mix them in a mortar with a half ounce of nutmegs, half ounce of cloves, quarter ounce of pepper; pound the whole and press through a hair seive. Keep these spices in a dry, well-corked bottle. These spices are used either alone or with salt added; the proportion for mixing with salt is one ounce of the mixture to four ounces of fine salt. One ounce of the spiced salt is sufficient to season three pounds of gelatine forcemeat.

CLEANING WOOLEN CLOTHING.—A simple apparatus, much used in Paris, for removing grease and dirt from woolen clothes, or scouring them, consists in a cubical wooden box, rotating on an axis passed diagonally through the opposite corners. The box is perfectly tight, and has an aperture at one side, through which the clothes are introduced, and having a valve door, which can be closed air-tight. The clothing is placed in the box, with a quantity of benzine, petroleum, ether or other substances, and after closing the mouth the box is rotated rapidly, about twenty or thirty times in a minute. After a sufficient time, the clothing is removed, the operator squeezing out the liquid as the pieces are brought out. After the remaining benzine or other substance has evaporated the articles are well brushed. A box two and a half feet deep will take in twelve overcoats, or twenty-five pairs of pantaloons. The same apparatus may be used as a washing machine. Another method, though a dangerous one, consists in passing the vapor of distilled benzine and other substances against the cloth, brushing this thoroughly during the operation.